

KANSAS FARMER

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MANGE CAUSES HEAVY LOSSES

More Than Usual Amount of Scab Among Range Cattle of Kansas

NOT in years has there been as much mange in Kansas as there is at the present time. The conditions the past winter have been unusually favorable for its spread. Feed has been scarce and the storms frequent with more than the usual amount of snow. Cattle cannot be safely dipped in cold weather or when in a run-down condition. Cattlemen and sheepmen must of necessity use the most strenuous efforts to check the spread of scabies and mange.

Scabies in sheep is caused by a little louse-like organism about one-fortieth of an inch long. This insidious insect, multiplying on the warm body of its helpless host, saps the animal's strength, causes the protecting fleece to slip away in patches, and the sheep falls an easy victim to exposure.

As far back as the history of civilization lets us see this scourge of flocks has been the despair of the shepherd and even with our boasted knowledge of life cycles of parasites, and of insecticides, unending watchfulness and skill are necessary to keep it from spreading and causing disaster to thousands of great flocks, for it possesses an almost uncanny ability to get from one place to another. Where sheep are trailed long distances to grazing grounds a whole state may become dangerously infected before the disease is known to be well started if expert guardsmen are not on the lookout and if laws are inadequate.

A similar mange affects cattle, but it is produced by a different mite that will not live on a sheep. The one that causes the most trouble in both cases is the common mange mite. The books and bulletins call them "psoroptes ovis" and "psoroptes communis bovis" to distinguish them from each other and from the various relatives that produce similar inconveniences and misery for sheep and cattle and losses for the owners. But for convenience here "mange mite" or "seab mite" or any name such as pest or plague or scourge can be taken as meaning either the one that attacks cattle or sheep or both of them—the common ones that cause the most damage.

Formerly scabies was the greatest drawback from which the sheep industry suffered and it was once one of the greatest hindrances to profitable beef production on our western ranges. However, the work of the Bureau of Animal Industry in co-operation with state live stock sanitary officials has gradually brought the disease under control except for occasional spreads, and if experienced men can be kept on the job and money is provided it will be driven out before many years.

The discovery that certain dips such as nicotine or lime-sulphur solution would kill the mites on the animals led to the making of dipping regulations by the bureau and many of the states where the disease was prevalent. It was found that one dipping freed an exposed animal if done within a few days after exposure and that a second application on affected animals within ten or twelve days got those that hatched since the first without giving them time to lay any eggs themselves. Dipping vats, which are much more effective than

spray pumps, have been built in localities where cattle and sheep are affected. Every year millions of sheep and cattle are given either one or two dippings.

Good progress has been made in recent years in the fight toward ultimate eradication of the disease from every nook and corner of the country, but last year there was a big increase, particularly in sheep scab. The disease broke out in various localities and spread widely in several western states, and in not a few instances scabby sheep have found their way to farms in the corn belt, and even as far east as New York State. Most of this disease recently discovered in the central and eastern feeding sections no doubt came from farther west on exposed sheep that had not been given the one precautionary dipping, because officials did not know of the exposure or it came on sheep that had not been properly dipped because of "green help" recently taken on.

Cattle scab has also been on the increase in recent months, but cattlemen are not suffering to any such serious extent as the sheepmen. Scabies of cattle is pretty well under control and there is much less of it in the country than there was five years ago. Still there are more infected herds than at this time two years ago.

Compared with some of the other diseases and pests that prey on the stockmen's herds and pocketbooks these mites that produce sheep and cattle scabies are of minor importance under ordinary conditions when the prescribed precautions are taken. It is estimated by men thoroughly acquainted with conditions that, in view of the increase in the disease and the high prices of meat and wool, that the annual loss is about \$8,000,000 on sheep and cattle. This big loss, which really amounts to a tax of more than a dollar on every farmer in the country, is due to death of stock, reduced thrift and damage to fleeces. But in addition to this drain on these industries we have to consider the cost to the owners of dipping their animals and the cost to the government for the field inspection and other work that is necessary to keep the plague from destroying a large part of the meat producing industry, which it might very well do if it were not fought every month in the year. It is estimated that it costs the ranchers and farmers around \$2,000,000 to dip the seven million sheep that were treated in the six months beginning the first of last July.

Aside from the direct loss of damages

there is a depressing effect on the industry to be taken into account. Iowa sheep feeders who had an experience with the disease this year—there were forty scabby shipments from that state in January—were discouraged, especially those who had just tried the business for the first time. Many of them wrote to the United States Department of Agriculture and to the farm papers saying that they had ventured into sheep feeding once and that it would be the last time. That attitude is a good indication of what a destructive disease scabies can be when it gets a start.

It is not difficult to imagine what the feeling is in a country where 12,000 scabby sheep are discovered as was the case in a county in one western state in January. That means many more thousands exposed.

The experience of the past year may seem to argue a poor system used in combating the disease. But there is nothing wrong with the system, for it has been working very successfully for many years and hope was entertained that before long the plague would be entirely eliminated. Veterinarians and lay inspectors are continually at work in all the principal sheep and cattle states and at all the public stock yards where an interstate business is done. During four months beginning the first of last September, 229 shipments of scabby sheep were found by inspectors at various central markets. This meant that every separate shipment was traced all the way back to the ranch or farm on which it originated and in all these 229 cases everything that was possible, considering men available and the provisions of the state laws, was done to prevent a spread to other flocks and to other localities. Altogether during the last year bureau veterinarians in the field supervised the inspection and dipping of more than thirty million head of cattle and sheep—about twice as many animals as the total of all kinds received in one year at the stock yards in Chicago. And most of this work is done in sparse grass territory where the number of cattle or sheep per square mile is very small.

The difficulties that come in the way of cure and prevention are many and various. In one section last year where there was an outbreak of cattle scab the drought was so severe that it was impossible to get water with which to do the dipping. The cattle were out on the range and got their water from creeks and water holes that had not yet dried up, but it was not possible to drive them into the corrals to be dipped even

if there had been enough water for dipping as there would not have been enough for the cattle to drink. That is one example of the troubles that beset the men who are trying to eliminate this disease.

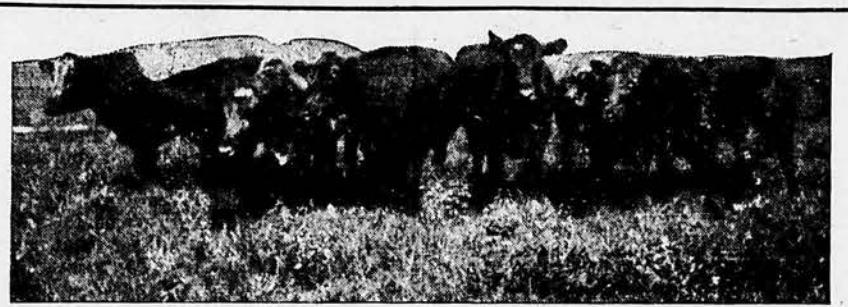
In the spring and summer there are ordinarily about one hundred men from the Bureau of Animal Industry in the field engaged in the campaign against scabies. During the heavy marketing season there are nearly two hundred, veterinarians and other trained inspectors, at the various stock yards who look for scabby cattle and sheep. In the past most of these men have been efficient, well trained workers, but since we entered the war and since salaries offered in other places have risen so noticeably it has been practically impossible to keep them. They have left by the dozens for more remunerative positions. Some of the veterinarians are now doing professional work in other places and quite a few have gone into entirely different work. Not a few of them went into the Veterinary Reserve Corps of the army where they started in at \$1,700 a year. Many of these men had been working for \$1,500 in the bureau. Serum manufacturers and packers have pulled a considerable number away from their government jobs at salaries ranging from \$2,000 to \$3,000 a year. The states in many instances pay more for their veterinary brains than does the federal government and consequently another leak is found there. Montana, for instance, pays her deputy "vets" \$2,100 a year. One lay inspector who had been working for less than the veterinarians got quit his job recently and went to work for the C. M. & St. P. Railroad at \$200 a month. Cattle and sheep raisers in the West have taken quite a number of veterinarians as managers at good salaries and others have gone into the stock business for themselves. One in California who had been with the bureau for twelve years recently quit and went to raising hogs and alfalfa in that state. Several experienced lay inspectors have resigned to enter railroad service—more money.

There are many veterinarians and others in this disease eradication work for the Department of Agriculture who are deeply interested and are determined to see it through even though they could make more money somewhere else, but the result has been in far too many cases that when a man has accumulated enough experience to be considered a top notcher he quits.

Here, then, we have a reason for some of the losses that have been coming to sheep and cattle raisers and also to other stock growers. It not only concerns these men, but the whole country that depends upon them to supply meat at a reasonable price. What will make our live stock safe? The answer is not easy to find.

J. H. Mercer, live stock sanitary commissioner for Kansas, has a big job before him the coming season in cleaning up our flocks and herds, and should have the fullest co-operation of every sheep and cattle man of the state.

Last year the slogan was, "First to fight" for democracy. This year it should be "First to serve" for humanity.



Who Manages The Standard Oil Company?

(Indiana)

SEVEN men, who have demonstrated unusual ability in their particular branch of the business, have been entrusted with the task and responsibilities of management.

Mr. Robert W. Stewart
Chairman of the Board

Mr. William M. Burton
President

Mr. Henry S. Morton
Vice-President

Mr. George W. Stahl
Secretary-Treasurer

Mr. Seth C. Drake
General Manager—Sales

Mr. William E. Warwick
General Manager—Manufacturing

Mr. Beaumont Parks
General Superintendent

are now at the head of the Company's affairs. These men, all residents of Chicago, and all actively engaged in this business, and no other, are the Board of Directors.

They are responsible to the 4628 stockholders, and to the public, for the policies governing the Company's activities.

Each Director is a highly trained specialist, who, in addition to being master of his own particular specialty, has a profound knowledge of the oil business generally.

This complete understanding of every phase of the business, from the production of crude oil to the intricate problem of distribution, is the reason for the superlative service given by the Standard Oil Company.

Standard Oil Company
(Indiana)

910 S. Michigan Avenue, Chicago, Ill.

By Dr. H. M. Graffe, U. S. Bureau of Animal Industry

THE task of fighting hog cholera has hardly more than begun in real earnest, but the veterinarians of the Bureau of Animal Industry have as their ultimate object the absolute elimination of the disease from American farms.

What is being accomplished in the control of hog cholera may be read plainly in statistics. Last spring we had very close to 75 million hogs in the country, the largest number ever raised, and the loss from cholera for the last year has been the lowest on record—thirty-nine for every thousand hogs. Assuming that these animals were marketed at an average weight of 200 pounds at the prevailing price for the year, this crop has returned to the producers about 2,250 million dollars. If hog cholera had raged last year as it did in 1913, the loss would have been in the neighborhood of 200 million dollars, and without the efforts of federal and state agents in the proper application of serum and improved methods of handling outbreaks of hog cholera, the program for more meat to meet war conditions would have been a failure.

In 1913, the year of the big loss, the Bureau of Animal Industry, with a number of its veterinarians, instituted a series of experiments in the field to demonstrate what results may be obtained by the proper use of serum and the application of sanitary measures in the prevention of cholera. Three counties were selected in the Middle West, and veterinarians were detailed to show the hog growers that it is entirely feasible to eliminate the disease. With the support and co-operation of the local authorities, farmers and others, these efforts were successful in showing that the eradication of hog cholera is within the bounds of probabilities, and further, a demand was stimulated that has made possible the extension of the work and the suppression of the disease in the principal hog raising states. Success in the further reduction of losses is certain, provided co-operation from the state authorities is continued and it is possible for the Department of Agriculture to offer inducement in the way of increased salaries for trained veterinarians to remain in the service. In the last few years many of these scientists have resigned to accept positions paying considerably more money.

The saving that has resulted from the efforts of the veterinarians of the Bureau of Animal Industry, in the last few years, in co-operation with state and practicing veterinarians, cannot be overestimated and is not fully realized by the public. Senator Kenyon of Iowa, in discussing before Congress some years ago the losses from hog cholera, presented the matter in a convincing manner and pointed out that for the last forty years the loss due to this disease had averaged 50 million dollars annually. Since this drain on the industry had been so regular, he compared the annual loss to the returns from an annual investment of 1,250 million dollars at 4 per cent interest, and stated that this loss, compounded annually, represented an amount sufficient to build a transcontinental railroad or several canals like the one we put through the Isthmus of Panama.

In spite of the drawbacks, the work of hog cholera control by the Bureau of Animal Industry has been extended gradually from three counties in 1913 until it now covers practically the whole of thirty-four states. There are employed by the Bureau about 165 veterinarians to assist the regulatory authorities of the various states in an effort to eliminate this costly disease of live stock. The work in its present scope involves sanitary surveys, the investigation of reported outbreaks of hog cholera, supervising and assisting in the treatment of infected herds, cleaning and disinfecting infected premises, establishing quarantine when necessary, applying state and federal regulations and providing assistance and advice to farmers, stockmen, practicing veterinarians and others concerning the proper disposal of dead animals, and methods of prevention and control of cholera. An important phase of the work of Bureau veterinarians has been to assist in formulating and applying state and federal rules and regulations that require the immunization and proper handling at public stock yards of stocker hogs intended for feeding purposes on the farm, in order that they may be returned to

localities where feed is available without danger of spreading infection. These animals are subject to reinspection from time to time, thus assuring safety to the feeder while the hogs are being finished for market.

Another task that goes hand in hand with the watching of the herd is federal supervision at serum establishments. All makers of serum doing an interstate business must hold a license issued by the United States Department of Agriculture and all of the product sold must pass inspection by federal veterinarians who have thorough training in serum production. Under this arrangement the quality of serum has been gradually improved. Last year more than 271 million cubic centimeters of anti-hog-cholera serum were produced by these licensed establishments and only 1 per cent of this was condemned as unfit for use, while the year previous 2 per cent of the total output was rejected. Government supervision has improved the quality of the product and the quantity produced has increased greatly until this year the output will greatly exceed that of any former season.

The Bureau of Animal Industry maintains a force of sixty-five veterinarians in the inspection of anti-hog-cholera serum. It is their duty to supervise all steps incidental to the production and handling of serum, such as proper sanitation of the premises, requiring that only healthy animals are used, that all serum and virus is tested for purity and potency, and that the products are properly labeled before being offered for interstate shipment.

With sanitation, the proper use of serum, the judicious application of quarantine measures and the co-operation of farmers and others interested in the production of more and better live stock, there is no doubt that hog cholera, which has menaced the swine industry for nearly a century, will be put away with the cattle tick and other detrimental factors to efficient live stock production, but the work must go on with renewed energy as we learn more about the disease and as farmers gain more confidence. Inducement must be offered to retain the best veterinarians in the work. A permanent appropriation for this class of activities by Bureau of Animal Industry veterinarians should be regarded as a wise investment. When we consider that the lowest annual loss from hog cholera is sufficient to maintain the work in its present scope for a period of sixty years, it looks as if we have been foolish enough to place a small bet on a sure thing.

Care of Pigs Before Weaning

The most rapid and the cheapest gains made by pigs are while they are sucking the sow. Ordinarily it will pay to keep small pigs growing as rapidly as possible. To do this, the brood sow must get plenty of good milk-producing feed as soon as the pigs are old enough to take all the milk she will give. It will not pay to stint on the feed given brood sows at this time, for the most economical gains made by pigs are from the feed consumed by their mothers while the pigs are sucking.

By the time the pigs are a month old they are ready for some extra feed, even though the sows may be extra good milkers and receive feed of the proper kind to their full capacity. As soon as the pigs show any disposition to eat they should have access to a small pen where the sow cannot go. In this pen they can be fed skim milk in a shallow pan or trough and they will soon begin to eat a little shelled corn. After they are well started on this extra feed a slop made of milk, some shorts, a little bran and some linseed oilmeal or tankage should be fed along with the corn. This kind of a ration with proper exercise will prevent thumps or scours.

A good mixture for young pigs is one made up of four parts by weight of corn, four parts shorts, one part bran and one part tankage. As the pigs become older the corn may be gradually increased to double the amount given.

In addition to proper feed it is of greatest importance that little pigs have plenty of sunshine and exercise. Sunshine and exercise cost no money, but are absolutely necessary for the best results.

Put on the thinking cap and do not let other work crowd out the chicks.

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THE FARM PAPER OF KANSAS

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THE VICTORY LOAN

Our patriotism will be submitted to the acid test in the campaign for the Victory loan, which will begin April 21. The war is won, but the country has enormous expenditures to make in payment for the munitions of warfare which were prepared on such a tremendous scale. Previous loans have had the fire of actual combat with our enemies to arouse our enthusiasm. This one will test the genuineness of our gratitude toward the men who by their personal sacrifices enabled us to do our part in making the world a tolerable place in which to live. We cannot afford to lapse into a comfortable, well fed attitude until every debt has been paid as far as it is humanly possible to pay it. Our dollars made possible such tremendous preparation of war material that Germany collapsed a year earlier than was expected. Probably half a million of our boys were saved by this earlier termination, made possible because we spent our money so lavishly. In meeting the Victory loan, which is necessary because our government had faith in the generosity of the people and made these vast preparations, we can show our gratitude and thankfulness that so many of our boys have been saved. Every Liberty loan has gone over the top, and we should pay our debts in a business-like way and put the Victory loan over just as enthusiastically.

REPORT OF HAYS MEETING

We are presenting in editorial form a number of the important things which came out at the roundup meeting held at the Hays Experiment Station last Saturday. Owing to the fact that the meeting came so late in the week, we could not give any of this material in the feature pages. It is to be regretted that the condition of the roads following the heavy snowfall of last week made it impossible for many to get to the station farm for this important meeting. The farmers of the western end of the state depend largely on the automobile to get across the country, and particularly in a north and south direction, as there are no railroad facilities except for east and west travel along the main lines. Superintendent Weeks fully expected an attendance of twenty-five hundred and had planned to serve lunch in the seed barn to that number. There was no gloom pervading the meeting, however, due to the weather conditions. Everyone knows that this snowfall practically assures enough moisture to carry the wheat through to a record crop.

Actually seeing the results of the year's experiments in the feed yards is a great help in getting the lessons of the various tests firmly fixed in the mind and it is worth a great deal to meet with a large number of men having the same problems. We will make a special effort to give our readers the lessons brought out, so that those who could not attend can at least read of what happened. Next week we will present features which are of necessity omitted this week from lack of space and time to prepare for printing.

The program was carried out as planned. A short talk was made in the forenoon by the new dean and director of the Kansas Agricultural College and Experiment Station, F. D. Farrell. Mr. Farrell made a good impression upon his hearers and with those he met at the meeting. E. E. Frizzell, the United States farm labor commissioner, told of the plans for handling the labor problem in the coming wheat harvest. O. H. Swigart of Salisbury, Missouri, the well known Galloway breeder and importer, was present and gave a most interesting talk on the importance of breeding better animals and some reminiscences of his visit to Scotland and Ireland in search of animals for importation.

Dr. H. J. Waters, editor of the Kansas City Weekly Star and former president of the Kansas Agricultural Col-

lege, also made a most interesting talk on the live stock problems of the country.

Following the lunch at the station seed barn, W. M. Jardine, president of the Agricultural College, took charge of the meeting, and after speaking most forcefully on the needs of Western Kansas agriculture, and particularly on the importance of developing the live stock interests, introduced Charles R. Weeks, the popular superintendent of the Hays Station, who reported in considerable detail on the results of the various lines of work for the past year. He was followed by Dr. C. W. McCampbell of the animal husbandry department of the college, who carefully analyzed the results of the figures presented on the various live stock tests of the winter. The results of the tests are printed in a circular which is available for general distribution. Copies can be obtained by addressing the Fort Hays Experiment Station, Hays, Kansas.

The two hundred or more visitors were hauled around on hayracks and other extemporized conveyances to see the animals in the different feed lots. A good many of those present were so enthusiastic that they were not deterred by the mud and slush from getting down and tramping about in the yards.

LIVE STOCK AND BAD YEARS

Live stock saved the day at the Fort Hays Experiment Station during bad crop years. Including all kinds of stock, there are over twelve hundred animals now on the station farm. This big experimental farm, the biggest of its kind in the world, is helping to solve many of the problems which Western Kansas farmers cannot afford to solve for themselves. Getting accurate information on crops and methods is expensive business and to a large extent must be paid for by the state. A part of the big farm, however, is run as a commercial proposition, and Superintendent Weeks showed most conclusively in his address at the round-up last Saturday how important the live stock has been in helping the station get by in the bad years. In the good wheat years wheat is a paying crop, and the profits help pay for some of the expensive experimental work. In 1917 the wheat crop was only 3,000 bushels, the yield being so small that it barely paid expenses of production. On many a Kansas farm similar conditions existed that year and also in other years. In fact on many farms the wheat did not even pay the expense that had been put into it. The experiment station had been developing its live stock and had something to sell. It could not borrow money, as does the private individual providing he has the necessary credit at the bank, and the only means of overcoming the deficit of the poor crop year was to fall back on the live stock. We will not attempt to give the details of this conversion of live stock resources into cash at these critical times. It was done and without sacrificing herds and flocks. It was possible because for years the policy of the station farming has been to conserve feed. We well recall how in the fall of 1911 every stalk of fodder on the place was harvested and put into the shock or stack. In corn fields where the growth was so small that it could be cut with a wheat binder, the crop was saved for feeding. The two silos which had just been put up on the dairy farm were filled and during the winter of 1911 and 1912 all this feed was hauled to the yards and fed to the cattle. The stunted forage was all converted into a real asset in the form of live stock. On many a farm this material was a total loss.

In later years the station has followed this practice, at times finding it possible to buy additional live stock when ranchmen and farmers were sacrificing stock because of feed shortage. Last year the experiment station produced 544 tons of alfalfa, 380 tons of wheat straw, 200 tons of sorghum fodder, 50 tons of corn fodder, 30 tons of

Russian thistle hay, 25 tons of Sudan grass hay and 800 tons of silage. The only feeds purchased were those that could not be grown, such as oats, linseed oil meal and cottonseed cake. There was enough surplus rough feed of various kinds to permit the selling of considerable alfalfa at prices ranging from \$25 to \$35 a ton. Some fodder was sold at \$8 a ton.

The most important point in the report of Superintendent Weeks was his setting forth of the facts as to the relationship of live stock to permanence in Western Kansas farming. His book records showed that in 1917 the alfalfa, which is of course grown only on the creek bottom land, returned a profit of \$20 to the acre, and in 1916 \$26.11. Corn in 1917 returned but 25 cents to the acre, and \$1.32 in 1918, and this was not from grain but the profit from saving and feeding the forage part of the crop.

In 1917 the sorghums returned 41 cents to the acre, and in 1918, \$18.41. The wheat profits were considerably swelled because the station was able to sell Kanred wheat for seed over the market price.

It now seems that nothing can prevent there being a big wheat crop in the wheat belt this year. Not in years has there been more moisture stored in the soil. Mr. Weeks in closing urged that some of this wheat money be put into silos, sheds and other equipment for handling live stock. He said: "You will be appealed to from every side to spend the money you get from your wheat crop for things you do not need. If you would make yourselves secure for the years to come, turn a deaf ear to these appeals until you have first built the silo and made other investments to enable you to safely handle live stock."

SILAGE OR FODDER

In the test comparing the feeding value of an acre of kafir in the silo and an acre in the shock, the figures given out at Hays last Saturday show that it took twenty acres to feed the cows in the fodder lot and 11.23 acres to feed the cows in the silage lot. There were twenty mature breeding cows in each lot and in addition to the silage or fodder each cow received two pounds daily of cottonseed meal. Reduced to an acre basis, this means that an acre of fodder fed a cow one hundred days and fifty-six hundredths of an acre of silage fed a cow one hundred days. The fodder and the silage came from the same field, alternate strips of ten rows each being placed in the shock and in the silo. The cows in the silage lot consumed 31.5 pounds of silage daily to the cow, and the cows in the fodder lot consumed 24.6 pounds of fodder to the cow. Of course much more of the fodder was rejected, but they were charged with all that was hauled to the racks.

The daily cost of feeding a cow in the silage lot was given as 15.6 cents and in the fodder lot 16 cents. Some difficulty was experienced in settling upon a price to charge for the fodder and the silage. The prices finally used were \$8 a ton for fodder and \$6 for silage. The actual cost of growing the crop and putting it into the silo was \$3.95 a ton. It cost \$5.12 a ton to grow the crop and put it into the shock. The yield of silage was 2.84 tons to the acre, and the fodder yield 1.23. It is our guess that the fodder hauled in from the field through the winter as it was fed was wet much of the time and therefore heavier than fodder would be in normal years, or in other words contained a good deal more moisture than ordinarily.

The safer and more positive comparison is on the acre basis, and the figures show that it took almost twice as great an acreage of fodder as of silage to winter these cows. Little difference could be seen in the two lots of cows, although the figures showed that, considering the weight of cows and calves together, the silage-fed lot had lost more in weight or an average of about ninety pounds to the cow in the period from De-

cember 20 to March 29. More cows had dropped calves in this lot, and that might account for part of the loss. The average loss for the fodder lot was a little over seventy pounds per cow.

It has long been maintained by men who have had experience with silos in the corn belt states that this method of preserving fodder practically doubles the live stock capacity of the farm. These acre comparisons of a kafir crop fed as silage and as fodder would indicate that the same claim might be made in the sorghum belt. The crop in this instance was practically without grain. The grain yield was only eighty pounds to the acre.

NEW IDEA IN SILO PRACTICE

A new idea in Western Kansas silo practice was suggested by Superintendent Weeks at the Hays meeting. We have long been convinced of the necessity of using the silo to store a reserve of feed in the good feed years, and urged it many times at farmers' meetings we attended, and since leaving the extension work of the agricultural college for the editorial work of KANSAS FARMER we have advocated the same idea in the columns of our paper. It is the only safe means of insuring against a shortage of feed in the poor years, which so often means the sacrifice of stock. There can be no permanence in live stock farming as long as there is the possibility of a poor feed year forming premature liquidating of foundation stock. Live stock must be a year in and year out business. You can go in and out of grain farming without any great sacrifice or losses, but not so with live stock farming, and for that reason perhaps Western Kansas has not developed generally a system of live stock farming. There must be assurance of feed every year. The growing of feed and the planning for an assured feed supply every year must be a factor in live stock farming. Any other method of handling live stock under western conditions is but speculation and in fact nothing more nor less than gambling with nature, as many a man has realized to his sorrow from the experiences of the past winter. The severe snowstorm of last week which extended over the western half of our state resulted in the loss of hundreds of cattle from exposure and lack of feed.

Professor Weeks urged the storing of a big reserve of feed in the silos when the cane and others of the sorghums grew tall and rank. These crops are easy to handle under these conditions, and the silage can be produced and stored at a low cost. His idea was that it would be possible to harvest the forage crops in the poor years by less expensive methods. In the years when it is necessary to haul stunted crops from a big acreage to fill the silos the filling cost per ton and the cost of production is greatly increased. By having enough silo capacity the small stunted crop might be hogged down in the field at a minimum of expense without putting any more labor on the crop which has already cost too much because the yield is so light. The reserve feed in the silos which was put up more economically can be drawn upon for winter feeding after the short crop has been fed down. In the West where pit silos can be used to supplement the more expensive and convenient silos, the plan suggested by Mr. Weeks might be followed with profit.

In 1914 the United States exported \$3,000,000 worth of dairy products. During the past year \$96,000,000 of dairy food went across the sea. It is estimated that the butter, cheese and condensed milk exported in 1918 required 2,500,000,000 pounds of fluid milk. Of course a large portion of this huge total went to the American soldiers abroad. However, the year 1919 will probably see the central countries of Europe in the market for dairy products and this will help keep the export trade on a high level.

GRANGE IN WASHINGTON OFFICE

Clear Course Charted in Reconstruction Program Adopted at National Meeting

THE National Grange is on the job at its Washington office, 303 Seventh Street, N. W. In its second monthly bulletin to the agricultural press the problems to come before the Sixty-sixth Congress are discussed and the stand the Grange will take as these various issues come up for settlement is set forth. The fact that most of the committee chairmen in the new congress are men of experience and of high standing is a matter for sincere congratulation, says the statement issued from the Washington office. In this bulletin it is pointed out that the currents and cross currents of contending political and economic thought which swirl about the national capitol, complicated and confused by class and individual interest, make here a maelstrom in which even the most experienced find it hard to steer a straight course.

The Washington representatives of the National Grange are fortunate in that they have on most matters now up for consideration a safe and very definite compass by which to steer. In the record of fifty years of Grange progress there is charted a clear course in certain directions, stated at each annual session and in particular summed up, restated in plain language and passed upon by a unanimous vote in the form of a Grange reconstruction program at the annual session at Syracuse, New York, last November.

The first problem before congress—the biggest one—will be to bring the government down to earth in its governmental expenditures. James W. Good will probably be the chairman of the committee on appropriations. He is pledged in public statements to stand square on the Grange platform. War

commissions, and other activities masquerading under the cloak of war necessities must be cut off. "Just as we earnestly urged the spending of the last dollar, and the use of the last man," says the Grange, "to win the war, so now we as insistently demand that the most rigid economy shall be exercised in governmental expenditures." Interpreting this in detail it means that every present adjunct of a government department must, before it is continued, whether maintained for research or investigation or to aid some favored interest—even agriculture—show its own present merit. Besides cutting off many useless and duplicating activities, each department must come down to business efficiency and economy. This is the Grange program of economy.

The next problem of congress will be revenue raising. The fundamentals of expenditures and revenues, and their relationship, must not be lost sight of. Representative Good estimates the 1919 cost of government at upwards of ten billion dollars. He says that no budget of the future will be less than \$3,800,000,000, or about \$30 for each person in the United States. The Grange is pledged to a budget system as a first essential, but wants to know how it is to be administered. The Grange is pledged to an income tax with a progressive surtax conditioned upon a maximum of 80 per cent on all incomes over \$500,000. The Grange is pledged to a tax to prevent land speculation and land tenantry, seeing no other weapon to use against the present dangerous tendency in this direction. The Grange is pledged to a tariff in which farm products receive equal protection with any or all other commodities.

The railroad problem looms large. The Grange is pledged as follows: "For thirty-five years the Grange has advocated the strictest governmental control of railroads. We demand that when the railroads are returned to their former owners in accordance with act of congress, the abuses of the past arising from over-capitalization and mismanagement be corrected. We favor co-operation between railroads that necessary economies in management may be accomplished and the most efficient service rendered to the public." Many plans for the future of the railroads are under consideration. The Grange will be represented on any plan finally wrought into a bill for committee consideration.

Price stabilization is being considered from many angles. In plain language this means "price fixing." The Grange opposes price fixing, but says plainly that if the price of any farm product is fixed, the price of every item which enters into its production should be fixed. Thoughtful persons will do well to study the troubles so-called price stabilization is having just at this time.

Control of the food packers is another big problem. The Grange has many years of record in opposition to government ownership, but in favor of the strictest possible government control. The Kendrick bill, with some amendments, seems at this time to meet the requirements most closely.

The army and navy program must await the outcome at Paris. The Grange has asked for the most rapid possible demobilization. Farms for soldiers has strong Grange support—not as put forward in the last congress, but subject to two principles: first, farms only for those soldiers who want them; second,

farms near established market centers under such terms and assistance as will lead to ownership and self-respecting occupation.

Two subjects are in the public mind on which Grange expression is not formulated up to date—the merchant marine and the League of Nations. To the League of Nations the Grange is committed strongly in principle, but has no statement as to details. On the merchant marine question the fact that the government now owns the ships and the yards interposes an obstacle to the application of the Grange principle opposing government ownership. The activity of the Washington representatives will be guided by the concensus of Grange opinion as it develops during the next few weeks on both these questions.

On one subject the Grange wishes to ask the support of all farmer people: "Where an agricultural position is to be filled, the appointment of a real agricultural representative is demanded." Agriculture is entitled to the recognition of its importance demands on all state and national boards. The men selected must be practical farmers, in sympathy with farm life, "identified in vocation, ideas and effort," so that representatives of agricultural interests and agricultural workers will rally around them with confidence in their leadership. Insistence on this principle is a cardinal feature of the work of the Grange in its Washington headquarters.

I hope that after having discovered the benefit of fresh and cool air applied to the sick, people will begin to suspect that possibly it may do no harm to the well.—B. FRANKLIN.

Sweet Clover Pasture for Cows

SWEET CLOVER is destined to become a most important pasture crop. This is especially true in Eastern Kansas. Obtaining new information on the possibilities of the crop for dairy cow pasture has been a feature of the dairy experimentation at Manhattan for several years. The season of 1919 was rather unfavorable for getting sweet clover started in that vicinity. It had been the practice to sow the sweet clover with oats, and thirteen acres were seeded last spring to take the place of other fields to be plowed up, but it was so dry and hot when the oats were cut for hay that the sweet clover made a poor stand and a poor development over most of the field. This condition, however, will not prevail every year, and the value of the crop has been so fully demonstrated that last season's results in getting a stand have not discouraged the dairymen at the agricultural college.

Prof. J. B. Fitch, head of the dairy department of our agricultural college, is urging the increased use of sweet clover as a pasture crop for milk cows. In a leaflet of the extension division he tells of the results obtained in a pasture experiment during the season of 1916-17. The pasture used was second year's growth of the common white sweet clover, which had been seeded the previous spring in oats and a cutting of hay taken from it in the fall. The clover made a good spring growth and the cows were turned in May 7. Six pure-bred Holsteins were put on this three-and-eight-tenths-acre patch of sweet clover. They had been receiving a ration of alfalfa hay, silage and grain. They had never eaten sweet clover in any form before, but within an hour after they were turned on this pasture they were all grazing and apparently quite contented. For forty days these six cows obtained an abundance of pasture from the three and eight-tenths acres of sweet clover. By July 16 the weather had become dry and hot and checked the growth of the clover so that three cows had to be removed. The pasture improved later, and on August 5 one of the cows was returned and from that time until the end of the season the four cows were pastured continuously. During the whole season the cows were on the pasture day and night, receiving

a grain ration consisting of a mixture of four parts corn chop, two parts bran, and one part oilmeal. They were given one pound of this for each four pounds of milk produced daily.

This pasture of sweet clover furnished the equivalent of 618 days of pasture for one cow, or an average of 154.5 days for four cows. In other words, it kept four cows five months, or one acre sup-

plied pasture enough for a cow five and three-tenths months. The total amount of milk produced by these cows while on sweet clover pasture was 19,393.5 pounds, containing 680.5 pounds of butter fat. They consumed 4,002.8 pounds of grain. Valuing the grain at \$60 a ton and the milk at 30 cents a gallon, one acre of sweet clover was estimated to produce \$141.70 worth of milk. Fig-



SHOWN here in her thirteen-year-old form is Sophie 19th of Hood Farm. She has just recently completed her eighth official year's record. This famous Jersey cow began making official records as a two-year-old, her first year's production being 7,050.2 pounds of milk and 395.9 pounds of butter fat, made when she was seven years old. With the record just completed in her thirteenth year—8,688.2 pounds of milk and 507.2 pounds of butter fat—she has a total official milk production to her credit of 100,557 pounds and 5,787.6 pounds of butter fat. As an official record this places her 800 pounds ahead in butter fat of any official records of continuous production that have been made by cows of any breed. The Jersey men are hailing this cow as the world's champion long-distance cow. Her last year's record closed on her fourteenth birthday. She is expected to calve again soon and will be started on her ninth official record. This cow is the granddam of Sophie's Agnes, the first Jersey cow to make 1,000 pounds of butter fat in a year.

uring butter fat at 50 cents a pound, the acre returned \$59.50 worth of butter fat. This makes no allowance for the value of the skim milk.

The cows in this experiment were weighed every ten days in order to determine the effect of the pasture on their body weight. They held their own through the whole period of the test. When turned on the pasture they averaged 1,284 pounds and at the close the average weight was 1,304 pounds.

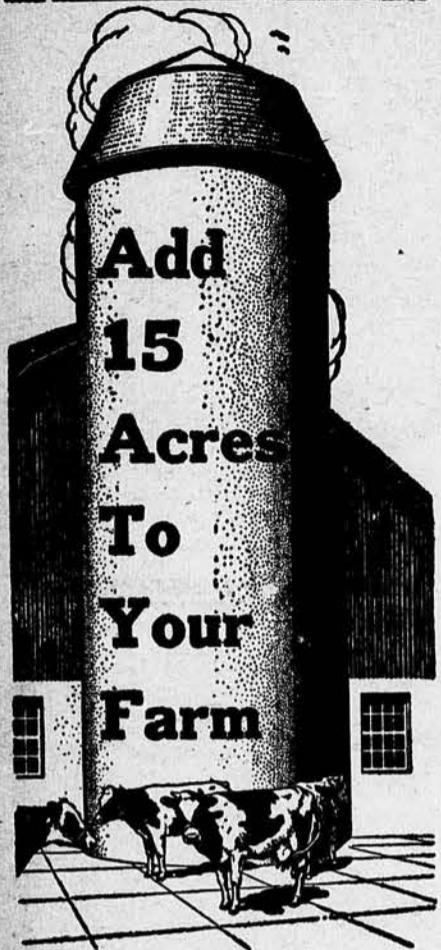
The question of bloat is frequently raised in connection with the pasturing of this crop. During thirteen days of this experiment it rained, but at no time was there the slightest trouble from bloat. It is generally believed that there is very much less danger from bloat in pasturing sweet clover than in pasturing alfalfa.

Summer Feed for Cows

The hot part of the summer season is always a critical period for the dairy cow. Flies and hot weather are given as reasons for cows falling off in milk during this period. Lack of proper feed is a contributing cause often overlooked. To provide against this contingency plans must be made in the spring. J. E. Payne, of Parsons, Kansas, tells of visiting a successful dairyman last summer whose records showed that his cows were giving as much milk as they gave during May. Mr. Payne asked him how he protected his cows in order to get such results. He replied that it had been his experience that cows got very little feed from the pasture during July and August. To make up for this shortage he fed his cows plenty of silage and grain.

Knowing in advance that he would be short of silage for summer feeding, he had a field of sweet corn which was ready for use just as the pastures failed. This was fed green, enough being cut and hauled to the cows each evening for a day's feed. He had also used feterita, kafir and cane in the same way. His experience led him to believe that the falling off in dairy production during the summer is more often caused by lack of feed than by hot weather and flies. There is a lesson in this incident to every man who plans to milk a few cows through the summer season.

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Concrete for Permanence

MANY farmers hesitate to begin with pure-bred live stock because of a conviction that only the old established breeders with big reputations can hope to get the high prices being paid for pure-bred stock. It is quite natural that the inexperienced man should have this feeling. Frank D. Tomson believes this attitude is the result of the conception which the average man has of the situation, and is due in part to the attitude of the breeders themselves in the earlier periods of improved stock breeding in this country.

In discussing this question recently Mr. Tomson pointed out that there has come a change and there is now not much distinction in the matter of prices between the breeder of long experience and the beginner provided the merit of the offerings as to breeding and individuality is quite similar. This change in the situation has been caused very largely by the association sales held under the auspices of the record associations or state, district, and county associations. Particularly in Shorthorn sales is this change of sentiment apparent. Those who have been foremost in the affairs of the breed have recognized that the opportunity of the beginner and the small breeder to obtain a ready market for their productions, however limited in numbers, is one of the chief assets of the business. So it has come about that associations embracing a locality, a county, district, state, or several states have been encouraged and frequent auction sales have been arranged under their direction or under the management of the American Shorthorn Breeders' Association. This plan was adopted in order that the man having a few head could present his surplus to the prospective buyer alongside the man with the large herd and longer experience.

Out of this steadily growing practice have developed many interesting results. In the recent National Shorthorn Congress at Chicago where 254 animals were sold at an average of \$785, a Michigan firm, C. H. Prescott & Sons, sold seven head for an average of \$996 which was \$111 above the general average of the sale. This was the second time this firm had ever offered any Shorthorns in a public sale. They made their initial offering a year ago at the first Shorthorn Congress, disposing of seven head for an average of \$775, an amount considerably in excess of the general average. Prescott & Sons have not been long in the business, nor are they located in a section that has been known as a Shorthorn breeding district. They used good judgment in their selections and they applied proper care to their cattle. When their productions

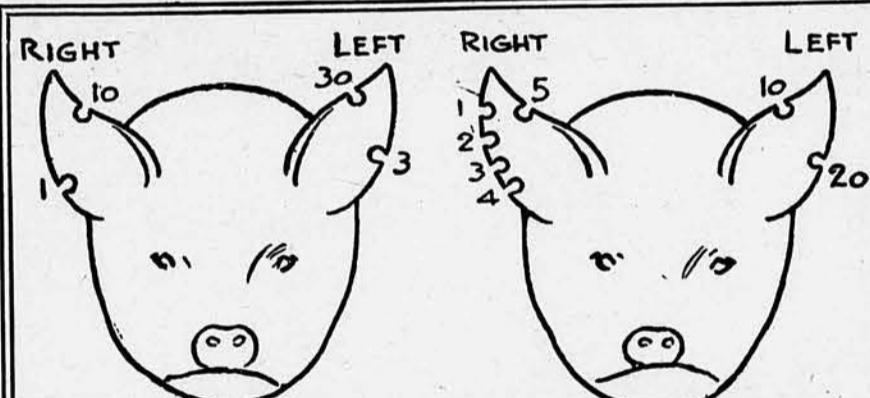
were offered in the Congress sale they found a ready market at strong prices.

Another rather striking illustration was had in the Milking Shorthorn Congress at Erie, Pa., late in March, where 107 head were sold at an average of \$515, a range of prices fully satisfactory to the sellers. In this sale the firm of E. E. Lafler & Son of New York made their first offering to the public consisting of three head, two of which they had bred. One of the two sold for \$1,850, the highest priced animal in the sale. The other sold for \$600, the third which was not of their breeding sold for \$450. The average for the three was \$967, nearly double the average of the entire offering, which to a very large extent represented the surplus of well established herds. It is an interesting fact that in both cases mentioned breeders of wide acquaintance were the contending bidders for the several lots.

These are typical examples of what is occurring where Shorthorn trade exists and happily the tendency is growing. Mr. Tomson refers to this breed because of his familiarity with it and his connection with the American Shorthorn Association. To the inexperienced it seems rather a peculiar fact that as the number of registered herds increase the trade becomes stronger. And he is surprised to note that the beginner seems to command equal advantages with the veteran whenever he presents a class of cattle as worthy. This applies, too, quite as forcibly to the show contests as to the sales. The basis of prices seems to be in the actual merit of the offerings regardless of ownership, just as the claim of the animal to the coveted prize is not influenced by the man who has paid its entrance fee. If there are exceptions they are so rare as to only serve to prove the rule. An open field for all with no special advantages to the few is the plan which the Shorthorn people are encouraging and upon this foundation the greatest expansion will develop.

In the earlier days the beginner and the man with the small herd did experience to an extent a disadvantage when it came to marketing the limited surplus because there were then no association sales to which he was encouraged to contribute nor was there an organized movement among the breeders generally to create and foster trade. But those days so far as the Shorthorn situation is concerned have passed and in working out this new and useful system a broad service is being rendered to the whole improved live stock industry.

There need be no hesitancy on the ground that trade opportunities will be lacking when it comes to investing in registered cattle. The purpose of the



Marking the Litters

THE breeder of pure-bred hogs who does not litter-mark his pigs lays himself open to suspicion in the matter of furnishing the correct pedigrees of the animals he sells. Even though only a few litters are farrowed, it is never safe to trust to memory. The memory is too treacherous when it comes to positively identifying pigs of different litters later in the season. Growers of market hogs will find it well worth while to adopt a system of marking the pigs. Only by knowing something about the breeding of the gilts can intelligent selections be made of the ones to save for brood sows. The gilts from sows farrowing only four or five pigs are almost sure to look better in the fall than the gilts from the sows with large litters. The cut shows two systems of marking pigs for identification. Both have been successfully used by growers of market hogs and by dealers in pure-bred hogs. The best time to mark the pigs is when they are only a few days old and before there has been any chance of litters getting mixed. They must of course be marked before they are weaned.

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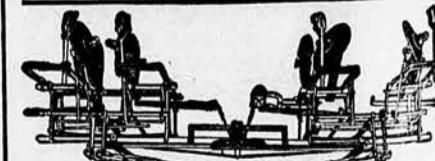
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April 19, 1919

KANSAS FARMER

various breed associations is to provide as far as possible channels through which the small breeder and the beginner may share equally in the trade advantages with the man who has been longer established and operates on a larger basis.

What's Pure-Bred Bull Worth

"Say, if your neighbor tells you he can't pay \$300 for a pure-bred Aberdeen-Angus bull, show him the Chicago, St. Louis, Omaha, Sioux City, Seattle or any other market figures for beef steers that these bulls get for the feed lots," says Charles Gray, secretary of the American Aberdeen-Angus Association. "The other day a load of grade Aberdeen-Angus steers sold on the Chicago market for an even \$20 a hundred pounds, and weighing as they did 1,360 pounds, they brought their owner \$272 each. Ask Emil Kirks of Bryant, Iowa,

"On December 2 last, another load of yearlings sold on the Chicago market for \$20 a hundred pounds—yearlings, mind you—bringing their owner over \$250 each. A load from Mississippi brought over \$260 at the East St. Louis market last July. Other loads from Alabama, Tennessee, Illinois, Indiana, Nebraska, South Dakota, Missouri and other states have brought well over the \$200-a-head mark for months and months. Why, a man can go to one of the bull sales, buy a bull and use him all summer, castrate him, and by the following January put him on the market for more than he cost.

"Talk about what a pure-bred bull is worth! Down south, where the tick has held back live stock for a half century, they still have the native Spanish stock that Columbus brought over, only some of it has probably slipped back a few degrees. They call these natives 'piney woods cattle,' or just 'critters.' Francis Coleman of Alabama, who had formerly been in the horse business in Illinois, estimates a pure-bred bull is worth more than a \$2,000 Percheron stallion, and he uses figures to prove it! One of these bulls will add more than \$100 to each calf from these native cows over what their steer calf products would bring from the scrub bulls when the two get to market. At that rate, the siring of twenty calves worth the extra hundred dollars each over the scrub steers from both scrub bulls and scrub mothers makes the \$2,000 each season. The difference between northern native cattle and these poorest southern specimens is wide, of course, but the principle holds good. The pure-bred adds beef, quality and early maturity. For grading up, the first generation gives the half-bloods, the next the three-quarter; then the seven-eighths, and fifteen-sixteenths, the thirty-one-thirty-seconds, and by that time the calf crop is getting so near pure-breds that you can begin replacing them with the kind with pedigrees without having to spend a fortune to get started.

Dangerous Horse Situation

The growing of horses, like many other types of live stock production, has its ups and downs. These might be compared to the tides of the ocean. There are times of flood tide followed by the ebb flow. Just now the tide in horse production is setting strongly in one direction—that of getting out of the business. Because horse prices did not keep pace with the increases in prices of wheat, corn, pork, beef and mutton, many farmers have quit the horse business. Their mares have been for sale to the horse buyer. In many cases even though the mares were held, breeding has been neglected. The ebb flow in the horse business is just upon us, and it takes a very strongly anchored person to stand against the flow of tide. It is also a rather thankless job as a rule to advise against following any popular well nigh universal practice or habit, but there is always a tomorrow to be considered.

To illustrate present tendencies in the draft horse business, Chester G. Starr, agricultural agent of Tazewell County, Illinois, gives a short review of what has happened in that county during the past two years. Tazewell County claims the distinction of having more pure-bred Percheron horses to the square mile than any other county in America. Old Louis Napoleon made history for the county in early days, and its draft horse interests have always been large.

To obtain an accurate opinion as to the decrease in breeding in Tazewell County, the Tazewell County Percheron

Association a short time ago canvassed the men owning stallions for the years 1915, 1916, 1917 and 1918. Direct questions were asked of each stallion owner as to the number of mares bred per stallion during these years. Enough replies were obtained to furnish reliable estimates. In 1915 there were recorded 155 stallions for public service. The average number of mares bred per stallion was sixty-five. Counting a 50 per cent colt crop, there should have been 5,036 colts of the 1916 crop. In 1916 the number of registered stallions decreased to 140 and the average number of mares per horse also decreased to fifty-five. This would be 3,850 colts for 1917. In 1917 the stallions again dropped to 115 and mares per stallion to 45 $\frac{1}{2}$. According to this only 2,616 colts could be expected in 1918. Last year, 1918, the stallions only numbered eighty-eight and the owners reported an average of forty-one mares per stallion. This year we can expect about 1,800 colts. From 1915 to 1918 the stallions decreased from 5,036 to 1,800, or almost

180 per cent. Here is food for thought. If one of the big draft horse counties cuts down its horse production in this manner, what is going to happen to the supply of horses for market three and four years from now?

A like decrease can be seen in the number of stallions registered in the entire state of Illinois. In 1912 there were 9,677 pure-bred and grade stallions licensed to stand at public service. In 1918 there were 7,120, or a decrease of 36 per cent.

The result is already becoming apparent in Tazewell County. The other day the secretary of the County Percheron Association was trying to find some real geldings to price to a buyer. In the course of his search a considerable number of men were consulted. No one knew of any big sound geldings of market age. A buyer of express horses told the secretary, a short time ago, that he was finding it very hard to find any horses suitable for his trade. Last August, in response to an inquiry for grade mares to over 500 men in Tazewell

County, only twenty-nine mares for sale were located.

In the light of these figures and from recent history it begins to appear that there will be practically no horses soon. When that happens, what will we do for work stock? And we will need work horses three, five, ten years from now?

The Department of Agriculture estimate on the number of brood sows in Kansas this spring is approximately the same as last spring. It is generally considered that the hog outlook is bright, and the reports are that a good crop of pigs is now being farrowed. Feed is of course still very high, but the possibilities of a corn crop are all that could be expected at this time, as there is an abundance of moisture in all sections.

Before you junk any piece of farm machinery, look it over carefully to see if some of the parts are not worth keeping for repairs. Bolts and braces, at least, are almost sure to come in handy.

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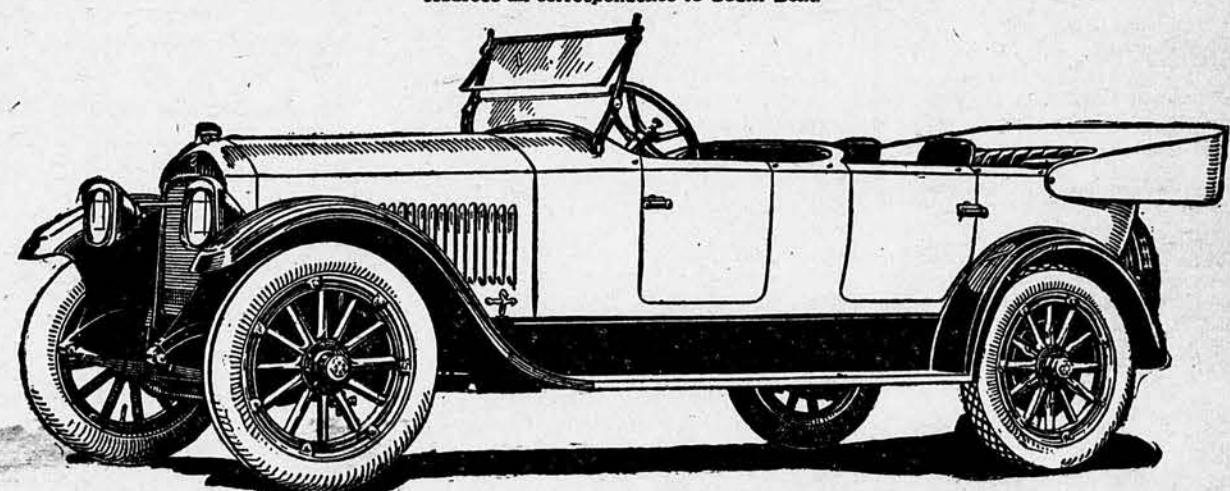
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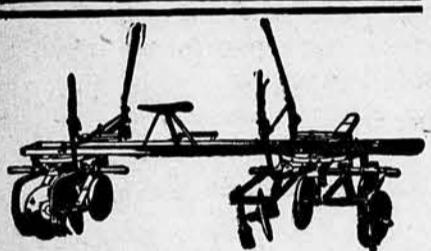
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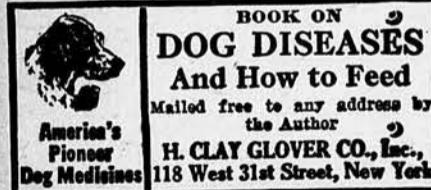
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19th & Campbell Sta. Kansas City, Mo.

Save the Baby Chicks

Our book, "CARE OF BABY CHICKS," and a package of GEMOZONE are the best insurance against chick losses. Those formerly losing more than half their hatched now raise better than 90 per cent. To you who have never tried GEMOZONE, we will send postpaid, book and package as above. You pay, if satisfied, 75¢; 60 days' trial. We trust you.

Druggists and seed dealers sell GEMOZONE, the best poultry remedy and preventive. For old and young—bowel trouble, colds, roup, masty or spoiled food, lumbago, neck, chicken pox, sour crop, skin disease, etc. Sick chicks can't wait. Do it now.

GEO. H. LEE CO., Dept. 415, Omaha, Neb.



Lower Tire Prices

The cost of tires, tubes, etc., is reduced about 25 per cent by co-operative buying. First quality, guaranteed tires are obtained at prices even lower than often charged for "seconds." This co-operative service, with prices, etc., can be secured by sending the membership fee of \$1.00 to L. Powell, Manager, Box 96, Racine, Wis., or full particulars will be sent on request.

The saving on a single purchase may equal ten times the cost of membership, and even the \$1.00 is merely held in trust as a guarantee of good faith, to be returned on demand. In sending your application to the above address give make of car.—(Adv.)

HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

Moisture for the Incubator

MANY are puzzled over the matter of supplying moisture in artificial incubation. The question can best be answered by knowing why we provide it, says Victor G. Aubry of the New Jersey Experiment Station. The purpose is often misunderstood. Many believe that when spraying the eggs or supplying the moisture trays in the incubator they add so much water to the egg. This conception is wrong, as it is impossible to put moisture back in the egg except under pressure. But on the other hand the moisture can be drawn or evaporated from the egg very easily. The reason we supply moisture to our incubators and incubator rooms is that the air may not be too dry and so prevent it from drawing too much moisture from the egg.

Two conditions which induce rapid evaporation are heat and circulation of air. We know that objects dry much more readily and much more thoroughly in a warm room than in a cold one, and we also know that they dry faster in the wind. The air in an incubator is both heated and circulates, and its power of moisture absorption is therefore increased. In natural incubation the eggs under a setting hen are not subject to these conditions. The hen covers the eggs pretty closely and the only time they are exposed to the air is when she leaves the nest for food and water.

The only way we have of counteracting the moisture-absorbing power of the air in incubators is to provide a large amount of moisture so that it will be satisfied without absorbing moisture from the eggs. The ideal way to do this is to supply all the moisture to the air before it goes into the incubator. Often this cannot be done because of the nature of the cellar or room in which the incubator is operated, but as much moisture should be supplied in this way as possible. If only a small amount can be supplied, more should be provided inside the incubator by the use of sand trays or moisture trays or by saturating felt or burlap frames which fit into the machine, or by spraying or wetting the inside of the machine. Water should not be sprinkled on the eggs themselves, because when this water is evaporated additional moisture from the egg will be drawn with it.

The glass on the door of the incubator is usually a very good guide as to the amount of moisture needed. Just as long as the glass is dry one has not used too much moisture. When there is an excessive amount of moisture it will condense and gather in a fine mist on the door. This should be noted only after doors have been closed for at least half an hour.

Very seldom and only under the most exceptional conditions do we find the air in the incubator saturated with moisture, and only when the air is saturated is there too much moisture in it. It is safe to say that one should supply all the moisture possible, as the ideal moisture condition is just below the saturation point.

Nature has provided the correct amount of moisture in the egg for incubation. It is up to us to conserve this moisture as much as possible as well before the eggs are in the machine as after incubation starts. The eggs, therefore, should be kept in a cool, moist place until put under the hen or into the incubator. Then plenty of moisture should be provided from the very start of the incubation period until the end. Steaming warm water is most effective for this.

When one supplies a large amount of moisture in this way it will often vary the temperature considerably, and one should be careful that the temperature is regulated carefully. Otherwise poor hatches will result. In fact, poor hatches have been realized in many cases where moisture was supplied, because of varying temperatures. In these cases the fault has invariably been laid to excessive moisture. The appearance of moisture on the door of the incubator just at hatching time is not harmful, but

invariably indicates a good hatch, as it is caused by many chicks hatching and drying off, supplying at that time an excessive amount of moisture.

Poultry Yields \$1.14 an Hour

A side line for the farmer's wife which yields \$1.14 for every hour she puts into it is worth the consideration of every farm woman. A Wabash County, Ind., woman has demonstrated that this amount can be made by keeping chickens. Last year the local county agent interested this woman in keeping a farm poultry flock, and as a result she produced a net profit of \$172.24. She kept an accurate account of her work and found at the end of the season that she had received \$1.14 an hour for the time she actually devoted to caring for her flock.

Gapes Caused by Worm

W. R. G., Clay County, asks the cause of gapes and for methods of treating chickens so affected.

The cause of gapes in chickens is a small parasitic worm in the windpipe of young fowls. The larvae of the parasites are usually introduced in the drinking water, though sometimes healthy chickens get them by eating the worms that are coughed up by those afflicted with the disease. Chickens can also get gapes by running on low, damp places.

There are several well known preventives and remedies for this disease. Put a little salicylic acid in the drinking water and it will prevent gapes. They may be eliminated by mixing garlic and onions freely in the poultry food or by using powdered asafoetida and powdered gentian with it.

Another remedy is to give the chick a piece of camphor the size of a pea. The fumes will kill the worms. Camphor in the drinking water is a preventive of the disease.

Another good remedy is spirits of turpentine, dose five to ten drops. Change the location of the chickens to high, dry ground, and put camphor in the water, and it will save the rest of the flock.

A little girl in Osage County, Va., borrowed money from her father to buy nine settings of eggs, so she might belong to a poultry club organized by the United States Department of Agriculture and the State Agricultural College. One setting would have entitled her to a membership, but she is no believer in halfway measures. On this venture her first year's work netted a profit of \$98, and she has three roosters left.

As the chicks get larger they should be provided with larger coops, otherwise their bodies are liable to be deformed from crowding one another too much. Get them in the habit of roosting in their permanent poultry house as soon as they are large enough.

They know! Over there they've learned the value of Fish Brand Slickers, while we at home have had to do without.

Tower's Fish Brand Reflex Slickers
are now back on the job, ready for the boys as they come back, ready for everyone who knows the value of this real Service Coat when there's wet-weather work to be done.
A. J. TOWER CO. BOSTON, MASS. 

Real Estate For Sale

SACRIFICING well-improved 700-acre farm, 2 miles out, ideal home, 260 wheat half with sale, possession now, some for spring crop, fenced, cross fenced, every acre tillable, best buy in county, carry \$10,000. Be quick, see or wire R. C. BUXTON Utica, Ness County, Kansas

FOR SALE AT A BARGAIN

1,280 Acres of Seward Co. Land, well improved, 900 acres of good wheat, one-third delivered. Will sell on good terms. Price, \$27.50 per acre.

875 Acres Ford Co. Land, well improved, 200 acres of good bottom land, 40 acres of good alfalfa, 300 acres good wheat, one-third delivered. Price, \$45.00 per acre, on good terms.

320 Acres Ford Co., well improved, 200 acres good wheat, one-third delivered; only three miles from Bucklin. Price, \$17,000, on good terms.

320 Acres, five miles from Bucklin, fine modern house of nine rooms and all other good buildings, 100 acres rough pasture land, balance good. Price, \$52.50 per acre, on good terms.

430 Acres Ford Co., four miles from Kingsdown, seven miles from Bucklin; 250 acres good wheat, one-third delivered. Two sets fair improvements. Price, \$52.50 per acre.

Have several more good quarters and half sections in this same neighborhood at about the same price. Address

Mirt Newhouse, Pratt, Kansas

EIGHTY ACRES
Near Emporia; alfalfa land, well improved, good orchard, possession at once. \$115 per acre. Write for list of farms.
T. B. GODSEY - EMPORIA, KANSAS

Prevent Chick Bowel Trouble Raise All You Hatch

How to avoid loss, how to successfully raise baby chicks and just what to feed them, together with a host of valuable information to poultry raisers, contained in new 16-page bulletin by Prof. T. E. Quisenberry, Box 3710, Leavenworth, Kansas, said to be America's greatest poultry authority. This bulletin mailed free if you write before all are gone.—(Adv.)

In considering the breed of chickens best suited for the home flock, pay little or no attention to those which are not of local importance; that is, not being raised successfully in the community, except on the advice of experts.

Let the poultry have a share of the sour milk.

ROSS Ensilage Cutters and Silo Fillers

Fill your silo with Ross cut silage. It is cut clean, not macerated. Every particle contains its own juices. Ross cut silage is uniform from top to bottom of silo, not soggy at the bottom and dried out on top.

There's a type and size of Ross for any engine—4 H. P. and up, cylinder or fly-wheel construction. Each one cuts corn clean. Ross Silo Fillers run with 300 R. P. M. less speed—require one-fourth less power—and are absolutely safe and sure.

Extra heavy knives, low speed six-fan blower, self conforming bearings, ball bearing end thrust adjustment and reversible cutting bar. The Ross

Keep a crew on the jump to feed them. Won't break down. Never choke, no matter how fast the corn is fed. Thousands of happy owners testify to their year 'round honest dependability.

runs with a smooth, steady hum, fills your silo in a steady stream, every machine backed by sixty-nine years' experience and an ironclad guarantee.

Write For These Free Books

No wide awake farmer or

dairyman will pass up this chance. Simply tell us your needs. We mail these valuable books free. Many facts you should know, all explained. Get them—send a postcard—TODAY.

THE E. W. ROSS CO.
150 Warder St., Springfield, Ohio



Prospects for a Record Crop

LAST fall's planting of wheat in Kansas broke all records, and the state's immense acreage of wheat came near getting through the winter with a record-smashing condition on April 1. This is shown in the April report issued by Edward C. Paxton, Kansas field agent for the Bureau of Crop Estimates of the U. S. Department of Agriculture.

Only one April in the last twenty years has seen wheat off to an apparently better start; that was in 1901 when a condition of 105 per cent was recorded as compared with 101 this spring. The condition April 1, 1914, that ushered in the greatest wheat crop Kansas has hitherto produced, was 96 per cent. In 1901 starting with an April condition of 105 Kansas produced an average of 18.5 bushels on 5,356,000 acres, or 99,081,000 bushels. In 1914 6,000,000 acres produced an average of 0.5 bushels and a total of 176,000,000 bushels. Although no state forecast is made this early in the season, past experience would indicate that with anything like an even break from now till harvest, Kansas ought this year, on her 1,184,000 acres, to produce more than 100,000,000 bushels of winter wheat. No Kansas wheat crop with anything like a similar spring prospect has ever suffered a slump that produced even a near failure. The average condition of Kansas wheat on April 1 for the last ten years has been 77.7 per cent. The present condition of 101 per cent is in violent contrast with the condition of 67 per cent a year ago today and 45 per cent two years ago.

The spring of 1917 saw 65 per cent of the wheat acreage sown. The preceding autumn abandoned to other crops, May, 1918, saw 27 per cent of the Kansas wheat a total loss. Although estimates of abandonment are not made until May 1, present outlook is that acreage abandoned this spring will be exceptionally low. Some counties of the West and Southwest may suffer a loss as high as 3 per cent of the acreage sown, due to blowing of the sandy soils, because some fields of early seeding last fall, destroyed by hoppers, were not reseeded.

The losses from damage by white grub in Sedgwick County have been greatly exaggerated in recent newspaper reports. Although the loss in the fields may be even higher than 25 per cent, the total loss in the county will not exceed 1 per cent of the acreage sown and the actual abandonment of other crops may be less, due to the dotted nature of the damage and the smallness of the areas affected. Actual cattle killing in the state is exceptionally rare though some is noted on the lands in Labette County. There is scattered infestation of Hessian fly in the eastern half of the state. The greatest damage from this pest is probably in Miami County. It will take another month or six weeks of growing

weather to determine whether the fly is here in sufficient numbers to prove a serious menace to the present crop.

Only two districts out of the nine crop districts into which Kansas is divided show an average wheat condition below normal; namely, the West, rated at 99 per cent, and the Southwest at 94 per cent. The lowest county condition averages are in Hodgeman, 85; Lane and Scott, 86; Ness, 87; Gray, 88; all lying in a group in the West and Southwest. The highest county condition averages are in Franklin County with 112 per cent, and Chase County with 111 per cent. Douglas and Allen are rated at 110 per cent; Decatur, Rice, Reno and Linn at 109 per cent; Rawlins, Ottawa, Osborne, Leavenworth, Logan, Marion, Lyon, Morris, Barber, Cherokee, Elk and Greenwood at from 105 to 108 per cent.

The average condition of winter wheat in the United States on April 1 is estimated at 99.8 per cent of normal and a production of 867,000,000 bushels is forecasted on that basis. With the normal break in weather conditions from now till harvest, Kansas is slated to produce nearly one-fourth of that amount. At a guaranteed price of \$2.26 per bushel at Chicago market, such a crop would bring in almost as much cash as is now on deposit in Kansas banks.

Holstein Association Sales

In a letter to members of the Holstein Breeders' Association of Kansas, W. H. Mott, the association sales manager, points out that the recent Topeka sale demonstrates the necessity of a two-day association sale. Many of the buyers waited until the second day, expecting to buy stock for less money, but as is usual in such cases they were disappointed. The total of the breeders' offering sold at Topeka amounted to \$25,860, making the average \$344. In view of the fact that very few of the cattle sold with production records, the consignors must admit that the prices realized were satisfactory.

Mr. Mott states that a two days' sale with about 110 cattle can be held with practically the same expense as the one-day sale and the rate of expense per animal be substantially lowered. He comments on the growth of the association under the able administration of Ben Schneider, who has been president for the past two years, and A. S. Neale, the secretary, who has been re-elected for another year. The sales organization, which is only a year old, has been the means of distributing nearly 250 pure-bred Holstein cattle over Kansas and the Southwest, most of them going to new breeders just starting with purebreds.

Hogs are born that way and can't help it. That is why hogs get all the worst of it when you call some men hogs.

State Pig Club Boy Makes \$600 Profit

THE following story told by Harold Delfelder, of Atchison County, a former member of the State Pig Club, shows the opportunities open to Kansas farm boys and girls to make some money and learn much about the hog business.

This is only one of the many good records that have been and are being made by State Pig Club members.

"Four years ago I entered the State Pig Club with one pure-bred Poland China sow. She raised eight pigs, which I sold on the market at an average weight of 350 pounds apiece. This looked like a very good way to make money, so I bought another sow. From that time on my herd has increased until there are five sows, fourteen fall pigs, and thus far fifteen spring pigs, with three sows yet to farrow.

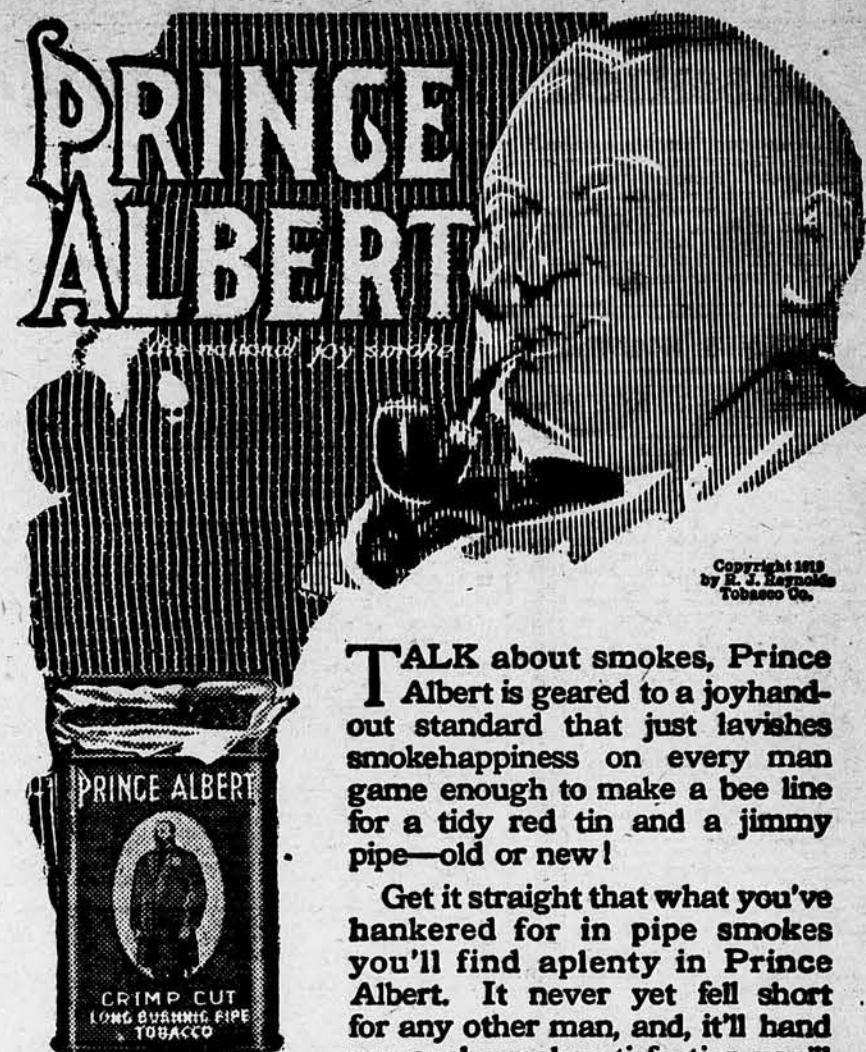
"The sows are valued at from \$75 to \$165 each, the fall pigs at about \$25 each now, but they will soon increase in weight and value.

"Last year from three sows I cleared close to \$600 after the feed and other expenses were taken out. But along with this there was some hard luck. One big sow that cost \$175 was not a good brood sow and she had to go to market. Last summer three pigs that weighed about 200 pounds each, died with the heat.

"I have won several prizes in the State Pig Club contest, some at the county fair, and some at the state fair.

"As all of these are pure-bred hogs, I sell many of them to breeders and thus realize much more for them than if they were sold on the market."

Harold had his ups and downs, but he did not become discouraged. He considered his club work as a business proposition. When his pigs died he did not become pessimistic, but stayed in the game and tried harder than before to feed and manage his pigs profitably. He has proven himself a winner in the long run, and his experience should be an example to other boys and girls who wish to become members of the State Pig Club.



TALK about smokes, Prince Albert is geared to a joy-hand-out standard that just lavishes smokehappiness on every man game enough to make a bee line for a tidy red tin and a jimmy pipe—old or new!

Get it straight that what you've hankered for in pipe smokes you'll find aplenty in Prince Albert. It never yet fell short for any other man, and, it'll hand you such smokesatisfaction you'll think it's your birthday every time you fire up! That's because P. A. has the quality!

You can't any more make Prince Albert bite your tongue or parch your throat than you can make a horse drink when he's off the water! Bite and parch are cut out by our exclusive patented process!

You just lay back like a regular fellow and puff to beat the cards and wonder why in samhill you didn't nail a section in the P. A. smokepasture longer than you care to remember back!

Buy Prince Albert everywhere tobacco is sold. Tippy red bags, tidy red tins, handsome pound and half pound tin humidores—and—that clever, practical pound crystal glass humidor with sponge moistener top that keeps the tobacco in each perfect condition.

R. J. Reynolds Tobacco Company, Winston-Salem, N. C.

THE PULL of the MONARCH

Makes it the Leader in Every Kind of a Job



The track laying tread of the Monarch takes it everywhere—through sand, mud, gravel, on hills, over ditches, and keeps it working all the time—is a money maker for you, Mr. Farmer. Never stalls and has no power wasted pushing front wheels. You need not use your fence posts to pry out of soft soil.

MORE POWER

In proportion to the size of the engine, the Monarch has MORE POWER on draw bar. Works everywhere—at everything needing power—all the year round. Saves fuel (kerosene) by saving on power.

MONARCH TRACTOR COMPANY, WATERTOWN, WIS.
108 First Street
DEALERS WRITE TO HATHWAY MOTORS CO., KANSAS CITY, FOR TERRITORY

The milk industry furnishing milk to New York City has been studied to such an extent that its chief features are already familiar to the majority of persons who would attend such a conference as the Milk and Dairy Farm Exposition to be held there this month. The 40,000 dairy farms furnishing milk to New York City are valued at an average of \$10,000 each, making a net investment of \$400,000,000 on the part of producers. The distributors in New

York City have about \$25,000,000 invested in the machinery and equipment and buildings necessary for milk handling and distribution. New York City pays to the producers each year about \$100,000,000 and to the distributors \$100,000,000, making the total bill for milk and dairy products for the city about \$200,000,000. The present milk supply of the city is 1,700,000 quarts, which is 300,000 quarts less than normal, or about 15 per cent.

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. Your advertisement here reaches over 60,000 farmers for 5 cents a word per week. No "ad" taken for less than 50 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.

AGENTS WANTED

WANTED — REPRESENTATIVE FOR manufacturer. Address E. F. Bornemann Corp., Paterson, N. J.

AGENTS — MASON SOLD 18 SPRAYERS and Autowashers one Saturday; profits \$2.50 each; square deal; particulars free. Rusler Company, Johnstown, Ohio.

AGENTS — MAKE A DOLLAR AN HOUR. Sell Mendets, a patent patch for instantly mending leaks in all utensils. Sample package free. Collette Manufacturing Co., Dept. 103, Amsterdam, N. Y.

LIVE AGENTS WANTED IN UNOCCUPIED territory for Western Kerosene Carburetors for Ford cars. An all-year-round seller. Biggest corporations equipping exclusively. Thousands in use. 35 per cent fuel saving, money-back guarantee. Big profits. Write for agency today. Western Carburetor Company, Alma, Michigan.

SEEDS

WHITE BLOSSOM UNHULLLED SWEET clover seed. E. S. Fox, Larned, Kansas.

YELLOW DENT GRADED SEED CORN. \$2.75 per bushel. Send sacks with order. Nick H. Muller, Howells, Neb.

SEED CORN, \$3.00. **NINETY-BUSHEL** kind. I return all cash unless satisfied. Wiltse, Rulo, Nebraska.

SUDAN GRASS SEED, \$14 A HUNDRED, my station. Clifford Swank, Route 3, Sedgewick, Kansas.

CHOICE BLACK AMBER CANE SEED, \$2.75 per hundred. Gus Herfert, Julesburg, Colorado.

FOR SALE — KAW VALLEY WHITE Seed Corn. Large, medium, late maturing. Test 98%. \$2.50 per bushel. Ear corn only. C. V. Cochran, Route 6, Topeka, Kansas.

FOR SALE — NANCY HALL, BRADLEY Yam sweet potato plants, tomato plants, 100, 55c; 1,000, \$3.75. Delivered. S. & H. Plant & Truck Farm, North End, Oklahoma.

WATERMELONS — **PURE HALBERT** Honey, direct from originator, \$1 lb.; Rubber Rind, \$1; Tom Watson, 75c. H. A. Halbert, Corsicana, Texas.

CABBAGE PLANTS — **EARLY JERSEYS** and Flat Dutch. Parcels post, 500 for \$1.50; 1,000, \$2.25. Express, \$1.75 thousand. Coleman Plant Co., Tifton, Georgia.

SWEET POTATO AND TOMATO PLANTS — Standard varieties, 100, 55c; 1,000, \$1.00; 10,000, \$35.00. I pay express and postage. Plants ready April 20. C. W. Sheffer, Box 38, Okmulgee, Okla.

BLACK HULLED WHITE DWARF kafir and yellow dwarf maize seed, grown especially for seed of big yielding types, \$5 per hundred pounds, graded and sacked f.o.b. Elk City, Okla. Chas. C. Miller.

NANCY HALL, YELLOW YAM, SOUTHERN Queen, Early Triumph, Pink Yam potato plants, \$3 thousand delivered. Pepper and egg plants, 15c dozen; \$1 hundred. Get catalog. Adams & Son, Fayetteville, Ark.

HARDY OPEN-GROWN PLANTS — NOW shipping leading varieties sweet potatoes, tomatoes postpaid, 500, \$2.00; 1,000, \$3.50; hot and sweet peppers, eggplant, beets, 500, \$2.50; 1,000, \$4.75. Cabbage, Bermuda onions, 500, \$1.25; 1,000, \$2.00. Write or wire for catalog and wholesale prices. Order early and notify us when the ship. Liberty Plant Company, Crystal City, Texas.

FROST PROOF LARGE WELL ROOTED cabbage and collard plants now ready, early and late, leading varieties. Acme, Stone, McGee tomato plants ready May 1; 200, \$1; 500, \$2; 1,000, \$3, delivered parcels post. Free recipe guaranteed to keep potato vines green all winter to each customer. Am no agent. Grow what I advertise. J. L. Garretson, Box 75, Winfield, Texas.

CABBAGE PLANTS, MILLIONS NOW ready. Varieties, Flat Dutch, Early Jersey and Charleston Wakefield, 100, 40c; 500, \$1.25; 1,000, \$2, postpaid. Ponderosa, Acme and Earliana tomato plants ready, same price of cabbage. Place your order with me now for good plants. Full count and prompt shipment or money refunded. J. H. Lancaster, Longview, Texas.

DWARF AND STANDARD BROOM corn seed, Red Top and Early Golden cane, feterita, Schrock and pink kafir, darso and common millet, \$6; orange, sourless, black and red amber cane, cream and red dwarf and standard maize, and dwarf kafir, \$5.50. Sudan seed, \$15; alfalfa seed, \$17. All per 100 pounds, freight prepaid. For prepaid express, \$1 more. Claycomb Seed Store, Guymon, Okla.

SWEET POTATO PLANTS — BEDS GOVERNMENT inspected and all plants shipped from disease-free beds. Porto Rico, Nancy Hall, and Middle Buster. Tomatoes: Earliana, Paragon, Stone, and Globe. Prices by mail prepaid, 100 for 50c; 250 for \$1; 500 for \$1.75; 1,000 for \$3. By express, 1,000 for \$2.25; 5,000 to 10,000 at \$2 per thousand. Over 10,000 at \$1.75 per thousand. Shipments prompt after April 15. Bruce Wholesale Plant Co., Valdosta, Ga.

MINNESOTA FARM LANDS

ONE OF THE BEST STOCK COUNTRIES on earth. Good grass, good soil, good water, plenty of rainfall. In Central Minnesota. Get our list of farms. Thorpe Bros., 1-206 Andrus Bldg., Minneapolis, Minn.

FARMS WANTED.

I HAVE CASH BUYERS FOR SALEABLE farms. Will deal with owners only. Give description, location and cash price. James P. White, New Franklin, Missouri.

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

CATTLE.

FOUR PURE-BRED HOLSTEIN BULL calves, Korndyke blood, and one service bull, Segis blood. Come early and get your choice. D. L. Higgins, Winona, Kansas.

REGISTERED GUERNSEYS FOR SALE, both sexes, all ages. Write for description and prices. W. E. Evans, Jewell, Kansas.

QUALITY HOLSTEIN HEIFER CALVES four to six weeks old by pure-bred sire, \$26, express paid to any station. Write for prices on older stock. Spreading Oak Farm, Whitewater, Wis.

HIGHLY BREED HOLSTEIN CALVES, either sex, 15-16 pure, from heavy milkers, five to seven weeks old, beautifully marked, \$25, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

HOLSTEIN BULLS AND HEIFER CALVES, thoroughbred, registered, foundation stock. "Bred in silk." Finest lot we ever raised. Milk fed from the start. Health guaranteed. Best blood of the breed. Beware of cheap Holsteins. Ask for salesmen. States your wants. Pres. Johnson, Kimball Heights, Tenn.

DOGS.

AIREDALES, COLLIES AND OLD ENGLISH SHEPHERDS. Pups, grown dogs and brood matrons. Large instructive list. W. W. R. Watson, Box 128, Oakland, Iowa.

REAL ESTATE.

640-ACRE HOMESTEADS. DUFF, CASPER, Wyoming.

LISTEN — EIGHTY ACRES, VALLEY farm, \$2,500; imp. 60 acres, \$1,250. McGrath, Mountain View, Mo.

FOR SALE — 820-ACRE FARM OR 180, \$35 an acre. Write for description. Joe Fox, Greeley, Anderson Co., Kansas.

SOUTHWEST KANSAS IS DEVELOPING fast. Farmers are making good profits on small investments. It is the best place today for the man of moderate means. You can get 160 acres for \$200 to \$300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually. Interest only 6%—price \$10 to \$15 an acre. 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 W. T. Oliver, Santa Fe Land Improvement Company, 405 Santa Fe Bldg., Topeka, Kansas.

WANTED

WANTED — 100 WHITE ESKIMO-SPITZ puppies about six weeks old. Brockway's Kennels, Baldwin, Kansas.

MISCELLANEOUS.

AVERY THRESHING OUTFIT FOR sale, cheap. Herbert Lessmann, Wayne, Nebraska.

HONEY.

HONEY — CHOICE WHITE ALFALFA, 120 lbs., \$24; 60 lbs., \$12.50. Amber honey, 120 lbs., \$22; 60 lbs., \$12. Bert W. Hopper, Rocky Ford, Colorado.

DELICIOUS EXTRACTED HONEY ON approval quality guaranteed. Thirty pounds, \$7.85; sixty pounds, \$14.90; 120 pounds, \$29.75. Sample, 15c. Wesley Foster, Producer, Boulder, Colorado.

THE STRAY LIST.

TAKEN UP — ON THE 8TH DAY OF NOVEMBER, 1918, by Emil Rosander, of Smoky Hill Township, McPherson County, Kansas, one white faced steer, long yearling, no marks or brands. Also one red yearling steer, both ears trimmed and small slit in right ear. Appraised at \$75. A. J. Cedholm, County Clerk, McPherson, Kansas.

A Well-Bread Reply

In reply to a complaint from a husky soldier anxious to get into the scrap, but who had been assigned to the bakery department, the captain said: "You wanted to be a doughboy; your assignment shows that we were looking for some thorough-bread; it's an honor, the secretary of war is a Baker. Now cease being so crusty, get these fancy-bread notions out of your head, and your path will be strewn with flour." — Cartoons Magazine.

It is a curious thing, but you may set a pear or peach or apple tree plumb wrong.

THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

Pictures in the Home

HOUSECLEANING time is at hand again, bringing with it not only the cleaning proper but also problems of interior decoration which arise from changes to be made in the arrangement of furniture and the decoration of rooms. Now is a good time to discard any useless articles which merely clutter up the room and collect dust. In deciding on the pictures to be used, only good ones—and not too many of those—should be retained.

Most of us cannot afford expensive paintings, but a few really artistic copies of the best paintings are within the reach of all. A beautiful landscape, a bit of mountain scenery in natural coloring, a woodland scene, or a winding stream with grassy banks or overhanging trees is always refreshing. In summer one of our beautiful snow scenes or a cool shady nook or a dashing mountain stream suggests coolness and comfort and brings a little of the restfulness of a vacation trip. Pictures that show suspended action are likely to produce a tired feeling. The character-building value of pictures should not be overlooked. If the human element enters in, care should be taken that the emotion suggested is one that it is desirable to cultivate. Only the beautiful in nature or in human life should be portrayed.

The size of the picture should be in keeping with the size of the room in which it is to be used and the space it is to fill. Gaudy colorings should be avoided, and the frame should be unobtrusive and suited to the picture both in width and color. It should of course never distract attention from the picture to itself. The attractiveness of a picture depends a great deal on the way in which it is hung. Large pictures should be hung with two wires and two hooks, says Nellie M. Killgore of the Colorado College, while small sizes need a single wire run from the center of the picture to a hook at the molding or may be fastened with push tacks. The following suggestions are also Miss Killgore's:

Let the picture rest flat against the wall by attaching wire near the top of the frame instead of one-third the way down. Hang about eye level, usually with lower edges on a line with the eyes. Don't hang too many. One medium-sized picture to a wall space is enough. Large pictures in heavy frames should not be hung in the house of ordinary size.

Don't hang on figured wall paper; it detracts from effect of picture.

Hang similar pictures together. For example, a water color doesn't look well next to a photographic print. Dark pictures are better hung in the darker parts of a room, and vice versa.

Dandelions as Food

While it is commonly known that spinach contains a relatively large proportion of iron, it is not so generally recognized that dandelions are also of value in this respect, says a bulletin issued by the New York College of Agriculture. It is the custom of many persons to take an iron tonic in the spring when both physical and mental vitality is low. In cases where this is needed, the iron in fruits and vegetables is used to much better advantage than is medicinal iron. Like other green vegetables, dandelions also have a mild laxative tendency.

The flavor of the crown from which the leaves radiate is exceedingly good, somewhat resembling asparagus. Even when the leaves are old, the crown is good. Dandelion greens should always be cut, not pulled, in order that this crown may be obtained. The imperfect outside leaves should be discarded because they are generally tougher than the others.

The leaves should be washed in several waters. It is usually best to blanch them on account of their bitter flavor.

An easy way of doing this is to tie them in a large piece of cheesecloth, plunge them into boiling water and let them boil for five minutes. Remove, plunge into cold water and drain immediately. The leaves should then be cut or chopped, placed in a kettle covered with boiling water and allowed to cook until they are tender, from fifteen to twenty minutes.

Very good salads may be made from the cooked greens by chopping them and combining with thinly sliced radishes and sweet red peppers, chopped sweet pickles and the juice and grated rind of a lemon. The fresh leaves, minced are an addition to a cottage cheese salad.

An egg and dandelion salad is made as follows. Cut hard boiled eggs in halves lengthwise and remove the yolks. Cut tender uncooked dandelion leaves into small pieces, add one small onion minced and the yolks of the eggs. Mix the ingredients well with boiled salad dressing and fill the whites of the eggs with the mixture. Serve the eggs around a mound of lettuce or dandelion leaves, or arrange them in a nest of the leaves. A boiled salad dressing containing quite a little vinegar is best with these dandelion salads.

Wilted dandelions are prepared by arranging the tender leaves and stems on a plate and adding very thin slices of onion. Slices of bacon, cut in small pieces, are broiled until crisp, and boiled salad dressing added. When the mixture is hot and smooth it is ready to pour over the dandelions and onion. This dish should be served immediately.

A filling for sandwiches is made by mincing the fresh leaves and stems very fine, and seasoning with onion juice, celery salt, and pepper. Add sufficient salad dressing to make the mixture the right consistency, and spread it between slices of buttered bread.

An Aid to Wiser Spending

Low standards of living in the home are often not so much the result of low income as of misspent income. Where no records are kept, much is wasted in buying. It is important that the wife be a wise and careful purchaser. Miss A. Grace Johnson, professor of house administration in the Oregon Agricultural College, is authority for the statement that women buy 48.8 per cent of all family supplies and have a voice in buying 23 per cent more; they buy 48 per cent of the drugs, 96 per cent of the dry goods, 87 per cent of the raw and market foods, and 48.5 per cent of the hardware and house furnishings.

The old system of regulating expenditures by giving the wife, as the principal purchasing agent for the home, an allowance which was expected to cover the family needs, was undoubtedly better than no system at all. Miss Johnson believes this is not the best solution, however. "It tends," she says, "either to niggardliness or wastefulness. If too small, supplies will be bought on credit, and if too large, it will generally be spent anyway for fear it may be re-due next month."

The system which seems to give the best results in the way of insuring a wise expenditure of family funds is a study of the requirements of the family with relation to the income which may reasonably be expected, and the careful planning of a budget for family supplies. The whole family should co-operate in making up and adhering to this budget plan. The family budget and carefully kept household accounts are first aids in promoting the health, education, pleasure and savings of the family.

"Y" Girls with 137th

The 137th has two "Y" girls now. Their popularity with the soldiers is just as might be expected for charming young American women who stand in the hearts of the boys for the mother, wife, sister or sweetheart at

With Paw and Maw

It was they who made sunflow-
er Kansas day; it was they who
put up curtains, it was they who put
much of "home" into the crude ar-
rangements the men had made in "Y"
. They made hot chocolate and
gnuts with the assistance of every
who had any excuse for being
ind. They start the music. They
the parties in consultation with
the committees of men who would up-
the mess kettle or burn down the
if the girls wanted them to do so.
y sew on buttons, chevrons and
nd stripes, they read scores of let-
over which they must enthuse, they
ster smiles and greetings up and
in the mess line and around the "Y"
es, and they are the boast and the
e of the two battalions. You will
plenty of criticism of Y men, who
human and make mistakes and er-
, but you will hear no criticism of
girls—it isn't safe.—W. V. MORGAN
Hutchinson News.

Sugar-Saving Desserts

Cold weather desserts are apt to be
substantial in character. Usually
are dishes requiring a large amount
sugar. The following recipes are sug-
gested for after-the-war use. In these,
sugar is replaced by a sugar-saver to the
ent of 50 per cent.

Plain Cake:

$\frac{1}{2}$ cupful light syrup
 $\frac{1}{2}$ cupful fat
2 eggs
 $\frac{3}{4}$ cupful milk
 $\frac{5}{8}$ teaspoonful baking powder
1 teaspoon salt
2 cupfuls wheat flour
 $\frac{1}{2}$ cupful corn flour or $\frac{3}{4}$ cupful
barley flour

Heat sugar, syrup and fat together un-
til very light. Add unbeaten eggs and
stir into syrup and fat mixture. Add
dry ingredients which have
been previously sifted together. Bake in
moderate oven. This makes two large
cakes or four layers.

Brownies:

$\frac{1}{4}$ cupful fat
 $\frac{1}{2}$ cupful molasses
 $\frac{1}{2}$ cupful syrup
1 egg
 $\frac{1}{4}$ teaspoonful soda
1 $\frac{1}{4}$ cupfuls wheat flour
 $\frac{1}{2}$ cupful barley flour or $\frac{3}{4}$ cupful
corn flour
1 square chocolate—melted
 $\frac{1}{2}$ cupful nut meats—chopped
Cream fat; add molasses and syrup.
beaten egg, flour into which soda
has been sifted, chocolate and nut meats.
well. Drop from spoon onto oiled
and bake in a moderate oven.—
E. TAYLOR, Home Demonstration
agent, Shawnee County.

Chilli

$\frac{1}{2}$ pound suet
1 pound ground beef
2 good sized onions
2 cupfuls tomatoes
3 cupfuls cooked chilli beans
1 to 2 tablespoonfuls chilli powder
hop up suet and fry until brown,
in onions and fry again until these
brown, then put in ground beef, mix
fry until thoroughly done. Turn
kettle and add tomatoes, beans,
chili powder, boiling water and salt to
the taste.—MRS. B. NEEDHAM, Lane.

The Easter Message

is the lesson of the spring,
that all things change, that all things
grow.
out of Death's most frozen woe
come life and joy and blossoming.
—Priscilla Leonard.

Most of us think of the "farm" as an
ideal place, and no one can question the
holiness of much in farm life.
we have learned that it is not wise
take it for granted that all country
in America makes a child happy
healthy. It must be admitted that
much farm labor interferes shock-
ly with the child's schooling, over-
exerts his strength, and impairs his fu-
ture usefulness.—Children's Bureau, U.
Department of Labor.

There's a reason other than vanity
why a woman should be well dressed;
gives her self-confidence and ease of
manner. To be well dressed does not
necessarily mean expensively dressed.

Giving

That's all we're asked to give.
gave his life, Jim. He'd have like to
live. Betty—bless her shy young heart—had
only weeks before he left put on his ring.
long her life will be to her, how
lonely nothing of him but remembering!
never flinched, nor he, my son; they
gave, working still, and Jimmie in his grave.
now today we're asked again to save,
give, give, give the country what we've
sweat toil to earn. It's hard for all—and
safe, we calm, we fortunate, we living,
wonder, dare we, dare we call this giving?
—Mary Carolyn Davies.

even goin' to town ag'in less'n paw and
maw goes along!"

No other soldier put it quite so
strongly, but every one of them whom
that civilian met felt the same way
about it.

An invalid who has to spend much
time in bed will appreciate a number
of small soft pillows or cushions to
place at his back or between the knees
or under aching limbs to rest tired muscles.
Half of an old woolen blanket
wrapped around the feet will usually
keep them more comfortable than the
temporary heat from a hot water bottle.
If a hot water bottle is used, it should
be provided with a woolen cover.

A small rubber door mat placed in
front of the kitchen cabinet, the sink,
or wherever it is necessary for the
worker to stand, not only protects the
linoleum but is soft and restful to the
feet. A soft rag rug will serve the same
purpose.

Gentle, persistent rubbing of the back,
the arms, the forehead, the upper part of

the neck will often relieve pain or quiet
restless nerves and induce sleep. A
drink of milk will sometimes banish
sleeplessness if placed where it can be
reached without the effort of getting
out of bed.

A little salt or borax added to ordi-
nary gloss starch will keep it from
sticking in ironing. Borax also gives an
added gloss.

The farmer's wife who uses oleo is
working against the interests of her
husband's business.

Surprising, but true: There are some
housewives who try to get along with-
out a pair of household scales.

Conservation time is always with us,
especially in making new clothes from
old.

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PURE-BRED S. C. BUFF ORPINGTON winner eggs, choice matings, \$2.50, \$3.50, \$5 per sixteen. Good hatch guaranteed. Mrs. C. W. Nelson, Osawatomie, Kansas.

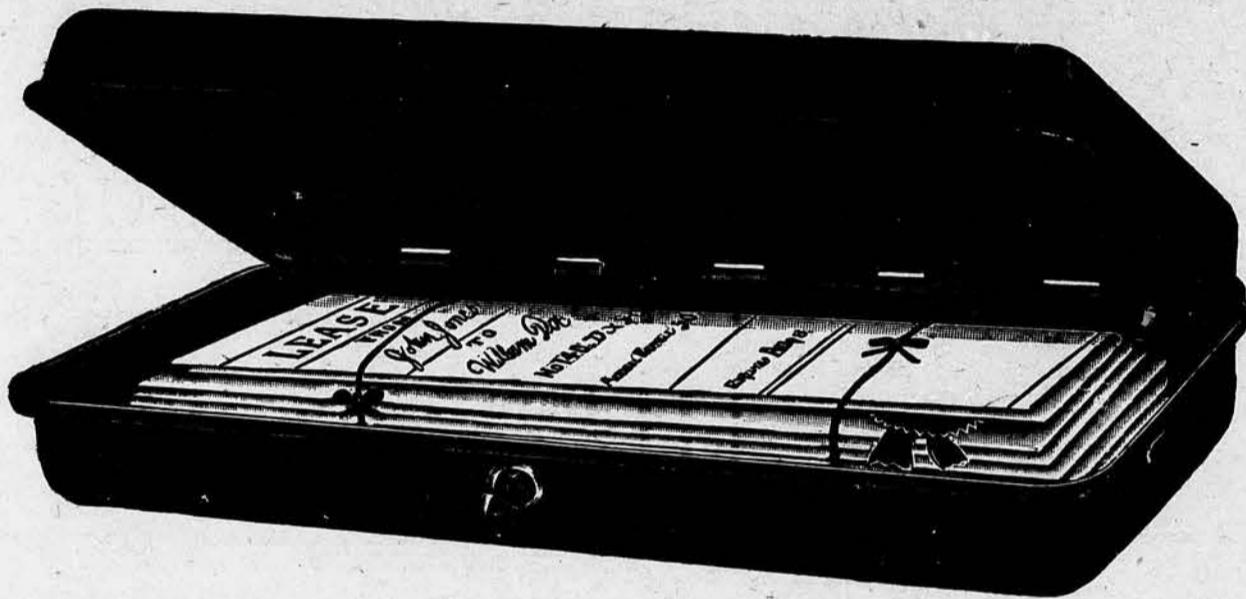
STRICTLY PURE-BRED SINGLE COMB White Orpington and Rose Comb Silver Laced Wyandotte eggs, \$1, fifteen; \$5, hundred. Mrs. Wm. Imhoff, Hanover, Kansas.

BUFF ORPINGTON EGGS—\$1.50, FIFTY per dozen. \$6, 100. Toulouse geese eggs, 30c each. Ganders, \$4.50. No geese. Mrs. Frank Neel, Beverly, Kansas.

EGGS—BUFF ORPINGTON, FROM WINNERS of first and specials at recent Nebraska state show. Shipped prepaid. Hatch guaranteed. Mating list free. Leo Anderson, Junia, Nebraska.

Keep Your Valuable Papers Safe

**Deeds, Notes, Mortgages, Liberty Bonds, Insurance Papers, Wills,
Jewelry, Valuable Letters, Etc.**



THIS STEEL DOCUMENT BOX GIVEN WITH YOUR SUBSCRIPTION TO KANSAS FARMER

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The box is deep black in color with lustrous polish, and makes a handsome appearance.

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Name..... R. F. D.....
To..... State

How About an Account Book?

Hundreds of farmers have sent to KANSAS FARMER for their Farm Account Book. Have you got yours? If not, HURRY!

Our Liberal Offer Will Soon Be Withdrawn

Do not delay in starting your records for this year, but get the best and cheapest book. The account book furnished by KANSAS FARMER is small, convenient, easy to understand and easy to keep. ORDER IT TODAY.

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KANSAS FARMER, TOPEKA, KANSAS.

GENTLEMEN: Inclosed please find \$1.00, for which renew my subscription for one year and send me the Farmers' Account Book as per your offer.

Name..... R. F. D.

Town..... State

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

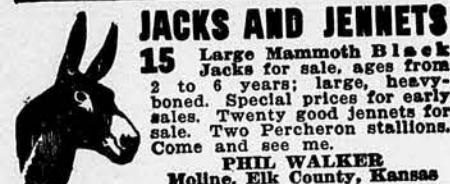
HORSES AND MULES.

Plaesent View Stock Farm PERCHERONS AND HEREFORDS

For Immediate Sale
Six-year-old Tom Stallion, black. Have his
fillies. Must sell.
One coming three-year-old, weight 1,750
pounds, gray, broke to service.
One coming two-year-old, weight 1,550 lbs.,
black, ready to use this spring on a few
mares.

All of these horses sound and good individuals.
In Herefords Have About Thirty Cows
and Heifers

All that are old enough are getting calves
this spring from my herd bull, Dominique
566433, a son of Domino, bred by Gudgel &
Simpson. A few May bull calves yet.
MORA E. GIDEON, EMMETT, KANSAS



JACKS AND JENNETS

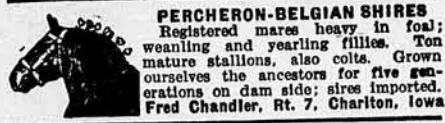
15 Large Mammoth Black
Jacks for sale, ages from
2 to 6 years; large, heavy-
boned. Special prices for early
sale. Twenty good jennets for
sale. Two Percheron stallions.
Come and see me.

PHIL WALKER
Moline, Elk County, Kansas

Percheron Stallion For Sale

LAPERSHING NO. 139914, extra good.
Black, white star, coming three years old,
recorded in Percheron Society of America.
Priced reasonable for quick sale.

LLOYD T. BANKS, Independence, Kansas.



JACKS AND JENNETS

Registered Jacks and Jennets. Good indi-
viduals, good colors. Have some choice
young jacks that are priced to sell quick.

GEO. S. APP. ARCHIE, MISSOURI

PERCHERON STALLIONS AND JACKS

FOR SALE—A number of Percheron stallions, yearlings and ma-
tured horses. All registered in Percheron Society of America. Sound,
heavy bone, splendid colors. I have several horses that would have
won in all the classes at our state fairs last year and must be seen to
be appreciated. Dr. McCampbell of Manhattan and O. W. Devine,
Topeka, tell me I have as good horses as they see on any farm in
Kansas. Come and see them.

J. C. PARKS

HAMILTON, KANSAS

JERSEY COW SALE

At Frederick, Kansas
APRIL 23, 1919



60 HEAD JERSEY COWS, 34 head giving milk, 14
head bred to freshen this summer and fall.

12 HEAD CALVES AND YEARLING HEIFERS, all
pure-bred but not registered, bred to a registered bull.

25 Head extra high grade Percheron mares and geld-
ings. Several splendid work teams.

I have sold my farm and am making a dispersion sale
of all my stock and farm implements. There will be bar-
gains for all.

Dave Racker, Frederick, Kansas

Jesse Langford, Auctioneer.

Farm one mile south of town.

LAPTAD STOCK FARM BOAR SALE

Everything
Immuned

THE TOPS OF 1918 CROP

Lawrence, Kansas, April 23, 1919

FORTY
HEAD



Twenty
Polands

Twenty
Durocs

COME, RAIN OR SHINE, APRIL 23, 1919
SEND FOR ILLUSTRATED CATALOG

FRED G. LAPTAD - - - LAWRENCE, KANSAS
AUCTIONEERS—RULE BROS., OTTAWA; C. M. CREWS, TOPEKA

State Dairy Council Meeting

The State Dairy Council completed its organization at a meeting held in Topeka April 7. We commented editorially on this proposed union of the various dairy interests of Kansas in our issue of April 5. Its purpose is to conduct an extensive campaign of advertising the use of dairy products. Delegates representing the various interests came together at the meeting referred to and the following officers and committees were elected: President, J. J. Corkill, Beatrice Creamery, Topeka; secretary, W. E. Petersen, Manhattan; committee for Ayrshire Breeders' Association of Kansas, James Linn of Manhattan and H. H. Hoffman, Abilene; Jersey Breeders' Association, D. A. Kramer, Washington, and J. A. Porter, Mayetta; Holstein Association, George Appleman, Mulvane, and A. S. Neale, Manhattan; creamery men, J. J. Corkill, Topeka, and G. S. Himes, Kansas City; ice cream makers, J. H. Bennett, Ottawa, and L. R. Manley, Topeka; State Dairy Association, George Lehert, Abilene, and W. E. Petersen, Manhattan.

It is estimated that \$10,000 will be needed to properly finance the council's program. As already stated, the Holstein breeders have pledged \$2,500. It

is expected that the other breed associations together will raise at least \$2,500 and the manufacturing interests the balance. The creamerymen have already pledged \$2,500. A trained man will be employed to manage the campaign to increase consumption of dairy products. The main office will be in Topeka.

Reflections of a Calf

(After having been fitted out with a patent wearer.)

"The whole world is against me."

"I'd like to fasten this thing on the hired man's face."

"If I look as foolish as I feel with it on, I must be a sight."

"What were milk appetites made for anyhow?"

"Even mother doesn't want me around with it on."

"May the kaiser wear one for life!"

"I hope the fellow who invented this will choke."—Hoard's Dairymen.

The farm home is both a residence and place of business. Considered as either, attractiveness is an asset.

It's all right to have a goal in life but don't forget to enjoy the scenery as you go along.—Selected.

HOLSTEIN CATTLE.**HOLSTEIN CATTLE.****CHOICE HOLSTEIN COWS FOR SALE**

One carload fresh Holstein Cows—One carload heavy Springers. These cattle are extra good. A few choice registered bulls.

HOPE HOLSTEIN FARMS

HOPE, KANSAS

ANGUS CATTLE

Dietrich's Aberdeen-Angus
bulls, fifteen choice spring bulls.
all ages.

BRAEBURN HOLSTEINS
Looking for a bull? I can generally offer
you choice of half a dozen, by two different
sires. That saves time and travel.

H. B. COWLES

608 Kansas Avenue Topeka, Kansas

BUTTER-BRED HOLSTEINS

Three choice registered Holstein bulls,
ready for light service, and some bred
heifers to a 32-pound sire.

J. P. MAST SCRANTON, KANSAS

Holstein Calves

Extra choice, beautifully marked, high-
grade calves from heavy milking dams,
either sex. Write us for prices and descrip-
tion.

W. C. Kenyon & Sons

Holstein Stock Farms, Box 33, Elgin, Illinois

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hol-
stein 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

REGIER'S HOLSTEINS

Registered bulls ready for service and bull
calves, out of good producing dams. Sire:
Sir Rag Apple Korndyke De Kol and Duke
Ormsby Pontiac Korndyke.

G. REGIER & SONS, Whitewater, Kansas

HOLSTEINS!

We are offering a choice selection of both
registered and high grade springer cows and
heifers. Also pure-bred bulls and young
females. All reasonably priced. Come and
see them or write.

T. R. Maurer & Co.
EMPORIA - - - - - KANSAS

CHOICE HOLSTEIN CALVES

12 Heifers and 2 Bulls, highly bred, beau-
tifully marked, and from heavy producing
dams, at \$25 each, crated for shipment any-
where. Safe delivery guaranteed. Write

FERNWOOD FARM, WAUWATOSA, WIS.
SEGRIST & STEPHENSON, WILTON, KANSAS
Breeding exclusively of pure-bred prize-winning record-
breaking Holsteins. Correspondence solicited.

SHORTHORN CATTLE.**It Pays to Grow Shorthorn Beef**

You get quality and weight both with the Shorthorn.
AMERICAN SHORTHORN BREEDERS' ASSN.
13 Dexter Park Avenue Chicago, Illinois
Ask for a copy of "The Shorthorn in America."

MARK'S LODGE RED SHORTHORNS

For Sale—25 well bred cows and heifers
bred, priced reasonable. A few young bulls
by Double Diamond by Diamond Goods.
Price, \$150. Come and see my herd.

M. F. MARKS, VALLEY FALLS, KANSAS

SHORTHORN CATTLE

For Sale—Five young Scotch bulls and ten
head of females, bred or calves at foot.
H. H. HOLMES, R. F. D. 28, Topeka, Kan.

"We congressmen want the farmers to
organize," said Senator Gore of Okla-
homa recently. "It will have many ad-
vantages. Labor is organized and when
organized labor speaks every politician
puts his hand to his ear. If you farm-
ers will organize, politicians will listen
for your slightest whistle."

The farmer who provides places for
the native birds to build their nests will
find the birds will pay good rent by
devouring destructive insects.

A. J. Erhart & Sons, of Ness City, Kansas,
who are well known among Poland
China breeders, topped the market at Kan-
sas City with a carload of Poland China
barrows. They weighed at eight months
of age 280 pounds and sold for \$20.30 with
a run of 18,000 hogs on the market. This
is the way Erhart & Sons market their
surplus barrows. Every one of this lot was
the big type Poland China and could have
been registered. Erhart & Sons have a
large herd of Poland Chinas and only the
choice animals are held for breeding pur-
poses, all others being shipped to the mar-
ket. This firm owns Big Sensation, the
largest boar of any breed, weighing 1,230
pounds.

DORNWOOD
FOR SALE—Chester Whites. Choice spring
boars and gilts.

R. E. Gildean, of Emmett, Kansas, owner
of Pleasant View Stock Farm and herds of
the that are among the best in the
state. The Percheron horses and Hereford
are the fine lot of stallions of the type that
is good. A feature of the Hereford
herd is the great lot of young cows and

**Farmers, Stockmen, Oil Men
ATTENTION!****BUY GOVERNMENT HORSES**

Your Opportunity to Secure High Grade Stock

AUCTION SALE
Government Horses and Mules

An Additional 3,400 Horses and Mules to be Sold at Auction
to the highest bidder at 8:30 a.m., April 28, 29
and 30, 1919, at the

**AUXILIARY REMOUNT DEPOT NO. 329,
CAMP TRAVIS, SAN ANTONIO, TEXAS**

**1,150 CAVALRY HORSES 1,250 ART. DRAFT HORSES
(1,200 to 1,500 lbs.)**

1,000 MULES

To be Sold Singly and by Teams

A number of these animals are mares suitable for breeding
purposes

These animals are serviceably sound and are free from
contagious disease. Veterinarian's certificate furnished.

The Government reserves the right to reject any and all
bids. Cash or certified checks necessary at time of sale.

Stock will be allowed to remain at depot 24 hours after sale.

A halter and shank will be furnished with each animal,
free of charge.

Arrangements can be made for shipping animals from
the depot.

Transportation will be furnished from Travis Park, South-
west corner and from the end of the Alamo Heights car line
to sale. Lunch can be obtained on the grounds.

For additional information address:

**COMMANDING OFFICER,
A. R. D. No. 329, Camp Travis, Texas**

**FARM AND HERD
NEWS NOTES**

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

Address All Communications to
Kansas Farmer, and Not to
Individuals

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

CLAIM SALE DATES.

Jersey Cattle
June 24—Dr. J. H. Lomax, Leona, Kan.

Shorthorns
May 16—Park E. Salter, Wichita, Kansas.

Holsteins
May 12—A. S. Neale, Manhattan, Kan.

Hereford Cattle
May 12—Kansas Hereford Breeders' Draft
Sale at K. S. A. C., Manhattan, Kan.

May 14—I. W. Bowman & Co., Ness City,
Kansas. Sale at Hutchinson.

May 18—Sam Drybread & Son, Elk City,
Kan. Sale at Independence, Kan.

China hogs. Mr. Downie has at the head
of his herd of sows Captain Bob, one of
the good sons of Caldwell's Big Bob, and
Wonder King by the great show boar. A
Wonderful King, a boar that was the grand
champion at the Kansas State Fair, shown
by F. Olivier & Sons. Several of the herd
sows are by Iowa King, Big Hadley Jr.,
Geraldine Monster and other good boars. A
feature of the herd at this time is the
sixty-five head of February and March
spring pigs now on the farm.

Three thousand four hundred horses and
mules will be sold by the government in a
three days' sale to be held at Camp Travis,
Texas, April 28, 29 and 30. The offering
will consist of cavalry, artillery draft horses
and mules.

G. Regier & Sons, of Whitewater, Kansas,
owners of one of the outstanding herds of
Holsteins in Kansas, report their herd making
a good record. This is one of the Kansas
herds of Holsteins that is bred for produc-
tion. One of the features of the herd at
this time is the fine lot of young stock,
including young bulls by Sir Rag Apple
Korndyke and Duke Ormsby Pontiac Korn-
dyke.

David Racker, of Frederick, Kansas, has
been breeding Jersey cattle for twenty years
on his well improved farm near Frederick.
Owing to selling his farm he has announced
April 23 for a complete dispersion of his
sixty head of Jersey cows and heifers. Mr.
Racker has always used pure-bred sires and
has several cows that are eligible to regis-
try, but the papers have not been kept up
on the herd. Thirty-four head of cows are
now in milk. Fourteen head will freshen
soon and twelve head of calves and heifers
will be offered that are very promising for
dairy stock.

Lloyd Cole, of North Topeka, owner of
Sunflower herd of Chester White hogs, re-
ports his herd doing well. Mr. Cole has
built up one of the good herds of big-type
Chester Whites in Kansas. The blood lines
of his herd are the best of the breed and
his herd of brood sows is a very fine lot
of individuals. A feature of his herd at
this time is the choice lot of bred sows,
bred and open gilts and outstanding young
boars.

The manager of Dornwood Farm, Topeka,
the home of choice herds of Jersey cattle
and Chester White hogs, reports the herds
doing well. The Jersey herd on this farm
is noted for heavy production. The breed-
ing of the Chester White herd is the best
of the breed and they have the early mat-
uring, easy feeding type. A feature of
the Chester White herd at this time is the
choice lot of spring boars and gilts.



Getting the most from Mother Earth

The part played by Correct Lubrication

Correct TRACTOR Lubrication

How to read the Chart

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

- Gargoyle Mobiloil "A"
- Gargoyle Mobiloil "B"
- Gargoyle Mobiloil "BB"
- Gargoyle Mobiloil Arctic

In the Chart below, the letter opposite the tractor indicates the grade of Gargoyle Mobiloils that should be used.

TRACTORS	1918 Models		1917 Models		1916 Models		1915 Models	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Abaugh-Dover (Square Turn)	B	B	BB	A	BB	A	B	A
Allis-Chalmers	BB	A	BB	A	BB	A	BB	A
All Work	B	A	BB	A	BB	A	BB	A
Andrews	B	A	BB	A	BB	A	BB	A
Appleton	BB	A	BB	A	BB	A	BB	A
Aultman-Taylor	BB	A	BB	A	BB	A	BB	A
" (18-30)	B	A	BB	A	BB	A	BB	A
Avery	BB	A	BB	A	BB	A	BB	A
" (5-10 HP.)	B	A	BB	A	BB	A	BB	A
" (Louisville)	BB	A	BB	A	BB	A	BB	A
Bates Steel Mule	B	A	BB	A	BB	A	BB	A
Bean Track Pull	B	A	BB	A	BB	A	BB	A
Best	B	A	BB	A	BB	A	BB	A
" (8-10)	B	A	BB	A	BB	A	BB	A
Big Bull	B	A	BB	A	BB	A	BB	A
Bower Cliff	B	A	BB	A	BB	A	BB	A
Buckeye (Indiana)	BB	A	BB	A	BB	A	BB	A
" (Ohio)	BB	A	BB	A	BB	A	BB	A
Case	A	A	BB	A	BB	A	BB	A
" (10-15)	A	A	BB	A	BB	A	BB	A
" (10-20)	A	A	BB	A	BB	A	BB	A
" (12-25)	BB	A	BB	A	BB	A	BB	A
" (20-40)	BB	A	BB	A	BB	A	BB	A
Chase	BB	A	BB	A	BB	A	BB	A
Cleveland	BB	A	BB	A	BB	A	BB	A
Common Sense	BB	A	BB	A	BB	A	BB	A
C. O. D.	BB	A	BB	A	BB	A	BB	A
Corn Belt	BB	A	BB	A	BB	A	BB	A
Creeping Gelt	BB	A	BB	A	BB	A	BB	A
Emerson-Brandingham (EB)	A	A	A	A	A	A	A	A
" (EB) 6-10	A	A	A	A	A	A	A	A
" (Big Four) (Reeves)	B	A	BB	A	BB	A	BB	A
Farm Horse	B	A	BB	A	BB	A	BB	A
Fisher	B	A	BB	A	BB	A	BB	A
" (Heavy Duty) (W.H.)	B	A	BB	A	BB	A	BB	A
Galloway	B	A	BB	A	BB	A	BB	A
Gas Pull (Rumley Co.)	B	A	BB	A	BB	A	BB	A
Grain Belt	BB	A	BB	A	BB	A	BB	A
Gray	BB	A	BB	A	BB	A	BB	A
Happy Farmer (Model B)	B	A	BB	A	BB	A	BB	A
Hart Parr	B	A	BB	A	BB	A	BB	A
Hawthorne	BB	A	BB	A	BB	A	BB	A
Hole Catfish (Model A)	B	A	BB	A	BB	A	BB	A
" (Model A)	B	A	BB	A	BB	A	BB	A
Huber	BB	A	BB	A	BB	A	BB	A
Imperial Forty	BB	A	BB	A	BB	A	BB	A
Ingeco	A	A	BB	A	BB	A	BB	A
Kardell	BB	A	BB	A	BB	A	BB	A
K. C. Prairie Dog	BB	A	BB	A	BB	A	BB	A
Kinkhead	BB	A	BB	A	BB	A	BB	A
Little Chief	BB	A	BB	A	BB	A	BB	A
Little Giant	BB	A	BB	A	BB	A	BB	A
Maytag	BB	A	BB	A	BB	A	BB	A
Minnepolis	B	A	BB	A	BB	A	BB	A
Mogul (I. H. Co.)	BB	A	BB	A	BB	A	BB	A
" (8-10) (I. H. Co.)	A	A	BB	A	BB	A	BB	A
Moline Universal	BB	A	BB	A	BB	A	BB	A
New Age	BB	A	BB	A	BB	A	BB	A
Nichols & Shepard	BB	A	BB	A	BB	A	BB	A
Ogle	BB	A	BB	A	BB	A	BB	A
Oil Pull (Rumley Co.)	B	A	BB	A	BB	A	BB	A
" (14-28, 10-30, 30-40)	BB	A	BB	A	BB	A	BB	A
Parrett	BB	A	BB	A	BB	A	BB	A
Pecora	BB	A	BB	A	BB	A	BB	A
Pioneer	B	A	BB	A	BB	A	BB	A
Flow Boy	BB	A	BB	A	BB	A	BB	A
Flow Man (24-30)	BB	A	BB	A	BB	A	BB	A
Pontiac	B	A	BB	A	BB	A	BB	A
Ramsey	B	A	BB	A	BB	A	BB	A
Russell	BB	A	BB	A	BB	A	BB	A
" (Little Four)	BB	A	BB	A	BB	A	BB	A
Sandusky	BB	A	BB	A	BB	A	BB	A
Simplex	B	A	BB	A	BB	A	BB	A
Standard	B	A	BB	A	BB	A	BB	A
Strat	BB	A	BB	A	BB	A	BB	A
Titan (I. H. Co.)	BB	A	BB	A	BB	A	BB	A
Tom Thumb (4 cyl.)	B	A	BB	A	BB	A	BB	A
" (Model 10)	BB	A	BB	A	BB	A	BB	A
Wallie Cub	BB	A	BB	A	BB	A	BB	A
" (Junior)	BB	A	BB	A	BB	A	BB	A
Waterloo Boy	A	A	BB	A	BB	A	BB	A
Wisconsin	B	A	BB	A	BB	A	BB	A
Yankee	BB	A	BB	A	BB	A	BB	A

WITH ever-widening markets for their crops, progressive farmers realized that animal power long ago reached its limit of production.

So they turned to mechanical power, as have men in other industries. With mechanical power they made the trip to town a matter of minutes instead of hours. They plow deeper, work faster, and cultivate a much bigger acreage.

The automobile and the tractor have become standard agricultural implements—one to shorten distances and the other to shorten labor.

The great war demonstrated two things:

- That mechanical power multiplies crop results.
- That mechanical power, operated and maintained at highest efficiency, gets the *ultimate* out of Mother Earth—at costs per acre far below any ever before recorded.

Whether you use an automobile or a tractor—or both—

you know the difference in power results and economy, between engines that operate at maximum efficiency at all times and those which are constantly breaking down in service.

Through long, successful years, one engine user after the other has turned to the *correct grade* of Gargoyle Mobiloils because the *correct grade* keeps their engines delivering their best. Our engineers, after years of careful research, have produced the two Authoritative Charts of Recommendations shown here. These Charts tell at a glance the correct grade of Gargoyle Mobiloils for any make of automobile or tractor for both summer and winter use.

Farmers who operate automobiles successfully, farmers who get the most out of their tractors, regard the Vacuum Oil Company's Chart of Recommendations as authoritative guides to correct lubrication.



Mobiloils

A grade for each type of motor

In buying Gargoyle Mobiloils from your dealer, it is safest to purchase in original packages. Look for the red Gargoyle on the container.

VACUUM OIL COMPANY, New York, U. S. A.

Specialists in the manufacture of high-grade lubricants for every class of machinery. Obtainable everywhere in the world

Domestic Branches: New York Boston Philadelphia Pittsburgh Detroit Chicago Minneapolis Indianapolis Kansas City, Kan. Des Moines

Correct AUTOMOBILE Lubrication

How to read the Chart

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

- Gargoyle Mobiloil "A"
- Gargoyle Mobiloil "B"
- Gargoyle Mobiloil "E"
- Gargoyle Mobiloil Arctic

In the Chart below, the letter opposite the car indicates the grade of Gargoyle Mobiloils that should be used. For example, "A" means Gargoyle Mobiloil "A", "Arc" means Gargoyle Mobiloil Arctic, etc. The recommendations cover all models of both passenger 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.

AUTOMOBILES	1918 Models		1917 Models		1916 Models		1915 Models	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Abbott	A	Arc	A	Arc	A	Arc	A	Arc
Abbott-Detroit	" (8 cyl.)	" (