

KANSAS FARMER

For the improvement



of the Farm and Home

Volume 52, Number 52.

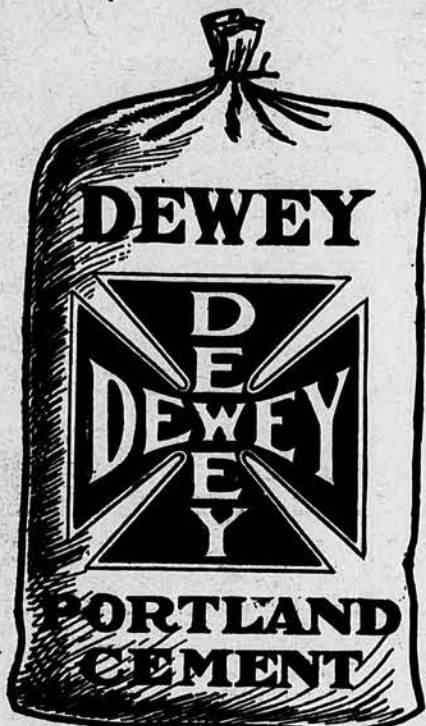
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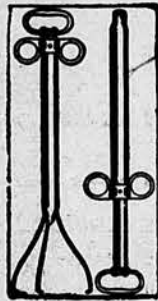


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Big Idea in Farmers' Schools

Louisville School so Successful That Another Will Be Held

SOME few weeks ago announcement was made through KANSAS FARMER that the extension division of the Kansas Agricultural College could arrange dates for twelve neighborhood schools in agriculture this winter. At that time two dates were claimed—for Louisville and Oswego.

The school held last week at Louisville, a little town inland three miles from Wamego, was an entire success. This was the verdict of more than a hundred farmers who attended. The fact that the school was practical was the reason farmers left their work and attended the school, morning, afternoon and night for five days. The farmers around Louisville are men of mature age. The younger generation has moved west or to communities where land can be rented cheaply. These farmers were intensely interested in every lecture, demonstration and address that was given.

When the time came for the instructor in dairying to talk, the different milk cows from over the town were judged and their good points pointed out. Instead of showing pictures of prize winning live stock, the whole school after a short talk adjourned to a near-by feed yard where the instructor had selected

several of the poor feeders and several of the good ones. The school gathered in a ring around the steers and asked questions.

When they came to discuss crops, each man had some little incident in his own experience with alfalfa and other forage crops which agreed or disagreed with the advice given by the instructor.

The hog cholera has done a great deal of damage around Louisville so that every farmer was glad to hear the veterinarian when he talked on hog cholera and vaccination and live stock sanitation.

The school was intensely practical. Instead of just lecturing and showing by charts how to improve the soil and to apply fertilizers, the instructor took the farmers right out into their fields and told them what was the matter with their soils. Of course, all the work could not be done in the field, but in many instances a short lecture was followed by a long trip to the farms near the town. Each farmer was eager to have the instructor visit his farm.

All the farmers in that community are agreed that it was well worth their while to attend the school, and they voted to hold the school another year.

Farming The Hard Way

"WHY don't more farmers run to the grass plan of farming?" is a question which Farm, Stock and Home, of Minnesota, submitted to subscribers for answer. One subscriber who has made marked success as a result of growing crops which so far as possible his live stock could harvest, made this reply: "Don't ask me; I don't know. Suppose it's because that is such an easy and sure way of making money. Plowing the ground and harvesting and all that is work, hard work. Must be because the farmer would rather work hard, have hired men around him and take more chances. That must be it."

The question is only another way of inquiring why farmers do not plant a greater acreage of crops which can be harvested by and marketed through live stock. We wish all KANSAS FARMER folks would read and reread the reply above, and while reading keep in mind that it is the reply of a farmer—a man who digs in the dirt, who grows crops and does everything else that might be expected of a farmer.

Because of hard work, so much of it, and the scarcity of hired help to assist with the work, have long been discouraging features of farming in Kansas as elsewhere. Yet, in spite of all the complaints lodged against farming because of these conditions we continue to farm the hard way year after year. With most farmers it is a matter of plowing and seeding, harvesting and threshing and the hauling of the crop to market. This crowds the work into the spring, summer and fall months. It means, too, the sale of the crops at a price which permits other feeders of live stock to feed that stock at a profit. The margin between the price at which the farmer sells the crop at the elevator and the price paid by the man who feeds the stock must necessarily be large. This because they must be transported by rail and wagon several times and must pass through two or three or more hands and each must be paid for his labor in handling and besides a profit thereon. This, in a brief way, sets forth the situation as it exists with the market crop farmer. This, instead of increasing the acreage of crops which can be consumed by the stock of the farm and driven to market on four legs. If any man can feed grain and roughage to animals profitably, it ought to be the man who grows the crop.

Not long since we spent a day in a section ideally adapted to live stock farming. So because of the character of the land, the topography of the country and the unusually long distance to railroad shipping points. Conditions in this community were such, it seemed to us, as to make live stock growing and feeding an actual economic farming necessity. However, in this locality there were comparatively few cattle, but on every quarter section there were twenty-five to forty acres of prairie grass. The hay is cut from this land, baled and marketed. It requires a long day to make a round trip from this neighborhood to the nearest best hay market with a ton and a half load of hay. This

grass land yields one year with another, about a ton to the acre and which sells baled at \$8 to \$10 a ton. It costs at least \$3 a ton to market this hay. Yet it is claimed that for this community the prairie grass meadows are the most profitable acres. When comparing the profit of wild grass with that of other land the comparison is made on the basis of the corn this land will grow. Excepting the creek bottoms the land of this community is not corn land, although in seasons when the rainfall is sufficient good crops of corn are grown. Yet this corn must be hauled fifteen to eighteen miles to market as is the hay. One year with another the land gives a low yield in corn, but it will grow profitable crops of cane, kafir, cowpeas, sweet clover, millet and other roughages and grain adapted to hog and cattle feeding. The lowlands grow alfalfa and corn abundantly. While the farmers of this section in one of the best counties in Eastern Kansas are under their present methods of farming probably more prosperous than the average of Kansas farmers, there is, nevertheless, the feeling on their part that they are not realizing as much money from their land and work as they should.

With the hay land in pasture and with sorghums growing on the cultivated upland and with a silo or two on every farm and with all the cattle and hogs each farm could accommodate, it is certain that there would be a marked improvement over the present existing condition. The labor saved through discontinuing the hauling of crops to market would greatly increase the income per farm if that labor were converted into some profitable work on the farm. As some proof of the correctness of our contention as above stated, we met at the meeting three men, each of whom were designated as "cattlemen" of the neighborhood. We made it a point to discuss with these the general farming situation in their vicinity. We found that they were doing things along the line appearing to us as best. Each was the owner of not less than a quarter section. Each was buying roughage, hay and corn for feeding in addition to that he could grow on his own farm. Each said he couldn't make farming go if attempted along the lines pursued by his neighbors. "Too much idle time in winter and too much time spent on the road hauling," was the way one man referred to market crop farming. On our road home we passed the farms of two of these "cattlemen" and could not help contrasting the appearance of thrift on these as compared with the average farm of the community. And, by the way, these three were the only men who drove to the neighborhood gathering with their families in automobiles. One had a motor car he had run for four years and he said it had more than paid for itself in the saving of time on the road between his farm and town. There is no question that the man who farms the live stock way will have plenty of work, but it will be a different kind of work and will yield a greater profit for the energy expended.

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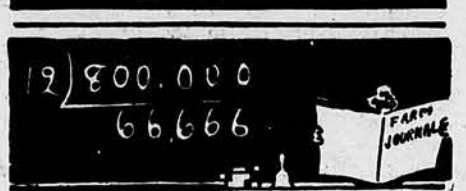
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KANSAS FARMER INDEX.

For the first time in many, many years KANSAS FARMER is this week failing to include the index for the fifty-two issues of the year in the last issue of the paper for the year. The index is being printed, however, and will be mailed upon the request of those subscribers who desire it. A post card to KANSAS FARMER will bring the index free of cost, by return mail. Thus, those readers who have kept files will be able to avail themselves of the index as heretofore.

Our index has listed therein between four and five thousand articles which have appeared in the fifty-two weekly issues of KANSAS FARMER during 1914. Every one of these articles was selected or written with the knowledge that it was helpful to some reader. These articles pertain to every phase of farm activity. They take cognizance of the betterment of farming conditions. KANSAS FARMER seeks to be of actual money value to every reader. We believe that we have accomplished this end. During the course of a year hundreds of readers write us that certain articles have been worth to them the subscription price for several years. Some have written that each issue of KANSAS FARMER is worth to them the price of a year's subscription. There is every reason to believe that these testimonials apply to every reader who goes through KANSAS FARMER each week in an attitude of seeking the truth—seeking those things which will be of value in farm and live stock management.

A bound volume of KANSAS FARMER is valuable as a work of reference. There is no book printed, or no sets of books written, which cover so wide a range of farm information as is contained in fifty-two issues of a good farm paper. No Kansas reader can find anywhere a book so valuable from the standpoint of the farmer as a bound volume of KANSAS FARMER. Yet we realize that comparatively few of our readers keep the files of KANSAS FARMER, and it is because of this fact that it does not seem the part of wisdom to devote four or five pages of one issue to the printing of the index. This would remove from that issue an equal amount of reading matter, which matter, we believe, readers generally will more appreciate than the index. So, we have printed the index for those who desire it and have given equivalent space to addition farm news for those who prefer it to the index.

GOOD ROADS BILL.

It is certain that a bill will be introduced into the coming legislature to create a state highway commission that will have supervision over road construction throughout the state. J. T. Kincaid, member of the legislature from Johnson County, in an address before the Johnson County Farmers' Institute, said he would introduce such bill, and on that occasion briefly stated his views.

He says there is a wide variety of road conditions in Kansas and that the practical thing in highway construction in Eastern Kansas is not at all adapted to the western section of the state. He holds that the practical solution lies in the creation of a highway commission with power to establish such standards as are best adapted to the varying needs of the different sections. He would also have the administration of the automobile tax removed from the office of the Secretary of State and given to the State Highway Commission. He says further:

"It only takes a moment's reflection to convince anyone that all road officials are now limited by law to certain things, and that local officials are handicapped by their environments. I want to see the State Highway Commission given such elastic powers that it can handle any local situation that might develop in any county. I want this State Highway Commission to study road problems 365 days in the year, a commission that can work with and not against local officials. I want a highway commission that will know the A, B, C—X, Y, Z, of road and bridge construction, a commission with large discretionary powers, because I believe that a commission thus

created will obtain better results than by any hard and fast laws that can be enacted by 125 representatives and forty senators, a great number of whom have made no study of road and bridge construction, and know nothing of the technical work necessary to obtain the best results. We are all for good roads at the lowest possible cost, not good roads for one mile and bad roads for the next, not good roads this year and bad roads next, but good roads all the time and everywhere."

A neighborhood organization holding three or four meetings a year, and those meetings attended by thirty or forty persons, would seem at first glance to be a small factor in the accomplishment of a year's work of the extension division of the Kansas Agricultural College. However, when it is recalled that there are 440 such institute organizations in the state and these have a membership of 15,000 heads of families, these same institutes appear far more important and the far-reaching influence can be appreciated. Also when it is recalled that the same extension division holds movable schools, conducts educational trains over the railroads throughout the state, assists and directs the agricultural agents, organize women's auxiliaries to farmers' institutes, directs girls' home economic clubs, etc., it is easily seen how the extension workers can talk to three hundred thousand people or one-fifth of the population of the state during a twelve-months period. This is the extent of the extension division's work for the year ending June 30, 1914, and which warrants not only the continuation of the work but the expenditure of such public funds for maintenance and extension that it may reach the largest number of people in the most thorough way possible.

Do not forget the annual meeting of the Kansas State Board of Agriculture, Topeka, January 13 to 15. We suspect that a great number of KANSAS FARMER folks entertain the idea that this meeting is held for board members. The fact is that the annual meetings of the board are held for Kansas people in general and the program is so arranged that every individual, regardless of his calling, may obtain therefrom something of value. Last week we stated that D. F. Houston, Secretary of the Federal Department of Agriculture, would be present and make an address on a subject close to the hearts of Kansas farmers. We stated also that President Waters of the Kansas Agricultural College would tell about the farmers of the Orient. The meeting will also be addressed by Jessie Field, a young woman who revolutionized the life of a country community in Iowa through her methods of dealing with the rural schools, and who will tell of her work in that line. Rev. Charles A. Richard, of Seneca, who has been notably successful with the country church, will discuss that subject under the title of "The Rural Outlook." "Why Good Roads Pay" is a sub-

ject which will be presented by Albert T. Reid, president of the Kansas Farmer Company, in a unique address illustrated with colored stereopticon views and impromptu cartoons. Farm methods and crops and live stock matters will also be brought before the meeting by speakers well posted and competent to discuss their subjects. If you can arrange for a few days' layoff, do it. Try to get someone else to do the chores for a few days and give yourself and wife an opportunity to attend this meeting.

The school children in Sauk County, Wisconsin, have during the past two years been making a social survey of each rural school district. They have been gathering the data pertaining to each farm, as follows: Name of farmer, owner or tenant, length of time on farm, size of farm, number and kind of modern farm machinery, barns and equipment and silos. Also whether or not the farm homes were supplied with such conveniences as running water, hot and cold, hard and soft, bath room, laundry room, power washer, telephone, lighting system, screened in porch, ice box, septic tank, vacuum cleaner, sewing machine, piano, gasoline or oil stove, typewriter. When the surveys from all the school districts in the county were collected the county superintendent had some surprisingly interesting data concerning the social conditions of the county. The results were published in local papers. Such survey would furnish a means for our Kansas teachers as well as pupils to become acquainted with the community. The survey would furnish, as it progressed, an interesting daily exercise for each school undertaking the work and the benefits are apparent. The teacher could draw therefrom many lessons of value and interest to the pupils. We hope each KANSAS FARMER boy and girl now in school will show the district teacher this item with a view to making a survey of the district.

At this tax-paying time, as in the past, the atmosphere about the county treasurer's offices has been fairly sizzling with complaints as to high taxes. People generally, we think, are not clamoring so much for less taxes but for more for the tax money. This is the reason that every taxpayer ought to take a deep interest in governmental affairs and direct the manner in which the tax money be expended.

Kansas is to be advertised in a novel way at the Panama-Pacific Exposition. This through 50,000 feet of films which will show every phase of agricultural, industrial and educational activity of the state. The pictures will be shown in the open air, and will be accompanied by lectures on "Kansas." The lectures will be made by Major W. L. (Ironjaw) Brown, formerly a member of the Kansas State Legislature and speaker of the House. Although several of the states in the country will show pictures of their industries, the Kansas production will be the largest on the grounds.

To All The People Of Kansas

WHEN women and children by thousands and millions are facing death from starvation, plain words are pardonable. Within one month less than half the people of Kansas have given approximately two-thirds of a shipload of Kansas flour for Belgium.

We ask and urge every home, every business house, bank and institution; and every stockman, farmer, and indeed every man, woman and child, to become part of the Kansas Belgian Relief organization and make some little sacrifice to help fill this Kansas ship and get it started across the sea.

It is believed that every sack of flour, every dollar given now, will save the life of a child or a woman. Who would sacrifice a human life for a day's wages?

If every Kansan would share a very small portion of his Christmas with these starving people who ask only bread, not even enough for a good square meal, but barely enough bread to sustain life, we can load the Kansas ship to its capacity.

Send contributions at the earliest possible date to your local committee or to the Kansas Belgian Relief Committee, Mills Building, Topeka.

PLEA FOR FARM INVENTORY.

The oldest business on earth—farming—has since the beginning been done without bookkeeping—without a means of knowing just how profitable or unprofitable it has been and also without the knowledge of which crop or kind of live stock has made the most money. Many farmers do not have the time to run a system of farm bookkeeping which would reveal the details of his business to the same extent as does the merchant. It is certain, though, that he can afford to expend the time necessary to keep such accounts as are essential to give at the close of the year a fairly accurate understanding as to the profitability of each of the various farm industries.

The most important single account and the one with which any system of accounts should begin, is the farm inventory. Right now is the time to make it. That inventory should show all assets, including land and improvements, stock, farm equipment, cash on hand, notes receivable, accounts receivable, grain on hand, and everything else of value. On another page in the book, or on another sheet of paper, should be shown all debts or liabilities, including notes payable, accounts payable, etc. The difference between the totals of the two columns of figures will show the present worth of the individual. The continuance of these two accounts, from year to year will reveal whether or not the farmer is running behind or getting ahead and in what amount.

We venture the assertion that comparatively few farmers have any reasonably close idea of the amount of money which they have invested in stock, implements, etc. A separation of the inventory account will reveal this. We think, too, that there are comparatively few farmers who have a reasonably accurate idea as to what they are actually worth. The inventory will reveal this, also.

Accounts should be kept with the live stock. There should be a horse, dairy cattle, beef cattle, hog and poultry account. The manner of keeping these accounts will in succeeding issues of KANSAS FARMER be described. It is only through keeping these that it is possible to know the income from each kind of live stock and to compare the income from one kind with that from another.

The farm inventory as above described is the first account to complete. Do it now. It can be done just as well today as at any other time. There is more time to make it now than there will be later.

Here is a good example of accumulative benefits derived through the county agent. In 1913 P. H. Ross, agent for Leavenworth County, did the first work among farmers in an organized effort to control Hessian fly. As a result of the work in that year about 15 per cent of the wheat acreage of the country was sown before the fly-free date. The results were such at harvest time in 1914 as to indicate the value of later sowing than usual as a means of decreasing damage done by the fly. This year less than 1 per cent of the wheat in the county was sown before the fly-free date. The fact is that a few years of serious effort at insect control would result in saving millions of dollars annually for Kansas farmer folks.

The past season the farmers of New York State and in several sections of Canada have used with great success the poisoned bran mash, after the formula of the department of entomology of the Kansas Agricultural Experiment Station, in controlling grasshoppers and army worms. Thus do the accomplishments of the Kansas station in insect control extend to the corners of the earth. It would seem that the people of our own state would appreciate to a greater extent than is apparent, the many good things which originate within the state.

The man who has farm products to sell is not worrying about conditions brought on by the war and he has received no backset as a result of the war.

COMMUNITY FINDS ITSELF

Louisville Community Again Lives Its Tradition and History—Osceola Burr



LOUISVILLE PAGEANT GROUPS.—INDIANS UPPER LEFT
—PIGRIMS UPPER RIGHT—SAILORS LOWER CENTER

OUR villagers and people of the open country are taking a new interest in community life. There are encouraging signs to indicate that we have entered a new epoch in musical expression. What a difference it will make when all the villages and country neighborhoods in Kansas are fully awake to this new community opportunity! Since there are so many small communities practically alike in this state, it naturally follows that what has proven successful in one is possible of accomplishment in many others.

This article is a record of the way in which the people in the community of Louisville, Kansas, found self-expression. A large number of young people eager for better social conditions came together in the old-fashioned way in a singing school. Attendance was not limited by age or restricted to those who had special musical ability. It was recognized that we are all singers, needing only an opportunity to learn how to sing in perfect harmony with each other. The movement was a protest against the tendency to send away to the cities and get noted singers to come and sing for country folk.

There was a time when musical training was thought very much worth while, when the old and young came together for the express purpose of singing. Out of that age developed the specialist. Here and there one with a particular genius for song turned his or her attention exclusively to that art and became an entertainer; leaving friends and neighbors to follow other pursuits, and depend upon the specialist for entertainment. In this way the common interest in musical expression was lost. The expert in many ways has been a real hindrance to the development of the common people, who have been more and more inclined to depend upon those especially trained to entertain them, failing to practice self-expression. The people have to a considerable extent lost the desire for group singing. This feature in community expression has made a marked difference in the type of people we have developed in the village and open country.

ORGANIZING COMMUNITY SINGING SCHOOL.
There are various ways in which a community singing school can be organized and conducted. Perhaps there is some one in the community fully competent to train the group, but more often this is not the case and a leader must be selected from a near-by town. This is an added expense, but among a large number each will pay a little in the way of a regular fee, and there will be sufficient income to carry on a splendid chorus. If there is no church building or hall in the community where such a group can meet, the school house may be used to great advantage. For such meetings arrangements must be made for the lights and fuel. All these items should be summed up and enough charged to cover all expenses. However, it must be remembered that such a group should not be organized for the express purpose of making money. Warren H.

Wilson, in his splendid book, "The Church of the Open Country," establishes it as one principle of the community entertainment that it must be self-supporting, but not a money-maker for some other cause. This rule applies to the community singing school.

Great care should be taken in selecting a leader. The instructor should understand the ways of the people among whom he intends to carry on such instruction. The leader should develop in all the ability to sing, and not single out those who have noticeable talent. Much also depends upon the leader in the way of selecting the proper style of music. Music has various effects upon the individual, but in dealing with a group it must be judged according to its tendency to inspire and build up character. This power of inspiration lies not only in the music, but also in the leader.

In the community which is the subject of this sketch, there has been a dearth of social life, which is so noticeable in all country neighborhoods. The singing school affords a splendid opportunity for social activities. In the fall and early spring one will find practically the entire group gathered together before the appointed time for singing, playing old-fashioned group games out of doors. This is a splendid way in which rural young folk can have good wholesome recreation. When the signal is given all go into the building and there settle down to work. Sometimes the musical production undertaken is very difficult and all feel very proud when that particular piece has been mastered.

BIG COMMUNITY SOCIAL FEATURE.
During the past year this group undertook the development of a difficult pageant, and the attempt met with marked success. The idea was by no means original. During the past few years this form of entertainment for and by the country neighborhood has been successfully undertaken in many communities. To witness such performances thousands have assembled, not in halls or in theaters, not in cities or large towns, but in the great expanse of the out-of-doors, with the green grass for a carpet and the Arch of Heaven for a canopy; in the midst of towering trees, by the side of rippling waters, in the silence of the country broken only by whispering leaves, by the bark of many squirrels, and the croak of husky frogs.

WITNESSED AND GAVE PAGEANT.
So with the Louisville pageant in the summer of 1914. The community came both to witness and to give a pageant. They were not gathered there to see and hear some grand noted actor or actress, but their own folk; for mothers, fathers, sisters and brothers were a part in this great outdoor performance. It was a

historical production taking them back to the beginning of our national life.

The pageant has begun! The Pilgrims move along sadly singing of hardships and religious yearnings. See Miles Standish; surely it is he, with the somber cape and hat—but no, look again—it is only our village schoolmaster! And there again, the elder, in costume of purple and gold, reading the Holy Book; surely this ancient gray-haired man is returned to us from the past—but someone near by reveals the secret that it is the village preacher. We hear the song of hope and faith, bidding farewell to home and kindred, trusting in God to lead the way. How strange a dream—for here we are on the mighty ocean, with the sailors in their white suits singing "Roll On, Roll On, Majestic Ocean."

But all is not pleasant on this journey, for one of our Puritan maids in gray is telling of grief for one departed. In such a time of grief come the pacifying words of the Elder. But what is this vision which we are led to see? We are nearing the shore of a new land; the Elder's son is telling us of it in song. The new land offers freedom, a place where oppression shall never reach them more. Suddenly the scene changes! Horror and fright possess them. Heartless bloodthirsty Indians are coming in upon the apparently helpless Pilgrims; they come from behind the near-by trees, brandishing their tomahawks streaked with blood. They are dancing their war dance and singing "Onward to Destroy Them."

Now they have passed on to accomplish their murderous mission, and before us is the Pilgrim family singing their vesper hymn. Little do they know the danger that awaits them. Even as they sing, the Indians can be heard raising their war cry in the distance. Suddenly the captain gives the alarm and the Pilgrim men gather to prepare for battle. They go to meet the foe, leaving the panic-stricken women alone and seemingly unprotected; but in this hour of need the Elder is at hand and encourages them, pleading for them to place their faith in God "Who in all things guideth well." Presently the voices of the returning Pilgrim men are heard in the distance singing of triumph. The women respond with a joyful song of welcome to the conquerors.

Once again loved ones are united, and in one grand chorus sing the song of victory. When this group has gone on their way rejoicing, the Indians appear, singing of defeat. They express their desire to find the Pilgrims and plead for peace. The plaintive Indian maids, dressed in their native costume, with their many beads and feathers, make an

impression long to be remembered. They come with bowed heads and drooping spirits, telling of the loss of loved ones, of brave warriors gone never more to return. Then follows the treaty of peace, bringing a distinct relief to the long-sustained emotions of the watchers who had witnessed so strenuous a journey and such perilous experiences. Now before us are the Pilgrims in the somber gray costumes, the sailors in their white suits, the Indian men in their native costumes and gleaming paint, the beautiful Indian maids in beaded dresses—all joined together singing a grand anthem of united effort, the joy of peace and the power of divine assistance.

SUCH IS THE MIRACLE OF THE PAGEANT.

Along with our various emotions, there is a feeling of joy and of pride as we remember that this great scene which we have just witnessed has resulted from months of training with forty of our young people. As the "make believe" characters become once again real, we discover in them our school teachers, our village preacher, our sisters and brothers and mothers and fathers of the community.

As a recent writer has well said, "Such is the miracle of the pageant, when its secret is understood. The pageant—community drama—has shown a bright pathway up and out of the blighting grind and joyless routine of this present mode of life with which our nation is becoming at last so profoundly dissatisfied. Metropolis, large city, town, village or country side, it is all the same; community self-expression and self-dramatization in forms of beauty and joy are showing us the way forward and through."

EVERY COMMUNITY CAN DO IT.

What this community has done any community can accomplish. Great talent is not necessary in this form of expression. Each one has a little ability along artistic lines. Can you imagine the greatness of a genius whose ability consists of various talents joined together? Yet that is what we have in each community. For a number of years our various talents have been scattered. In this new time we are collecting our forces. We have discovered a new art.

All of the fertile regions of our beloved Kansas hold secrets of the past. The forest trees whisper of legends long half forgotten, the rippling streams tell of the hidden Indian trails. What grand opportunity for traditional and historic material to be collected and put into form for such presentation. Such is the enjoyable task now being undertaken by the Pageant Group in Louisville, Kansas. They are gathering incidents of local tradition and history, and next summer, when all is prepared, they will live again in the presence of friends and neighbors, the life of the community from early days to the present time. What a grand opportunity for idealizing of community life, and for that development which comes to the community as well as to the individual, as the result of self-expression.

THE WHY OF INCUBATOR

Advantages of Artificial Incubation—By Thomas Owen, Our Poultry Editor

THE science of artificial incubation is of long standing—so long, in fact, that it dates to antiquity. The earliest form of artificial incubation we read of is that of the Egyptian egg oven. The eggs were placed in baskets and surrounded with fermenting manure which supplied the heat. These ovens we presume were built on the same principle as small hotbeds are now made. These were superseded by mud ovens, in which thousands of eggs were hatched annually. In both Egypt and China there are now communities for which the eggs are hatched at a central station. The owners of the eggs pay a certain price to the owner of the oven or incubator, for hatching. Sometimes the proprietor buys the eggs outright, then sells the chicks to those who wish to buy. Some of these ovens have capacities of hatching 300,000 eggs a season. They are large low buildings constructed of brick or clay. There is an alley in the center, on both sides of which are shelves containing the eggs. The heat for hatching the eggs is generated by fuel placed on a ledge in the building. The attendant goes through the alley and into the building at will to regulate the temperature. The incubator of today is an evolution of the last fifty years and in place of the old system of having the eggs incubated in one central station, the modern incubator goes to any farm or poultry plant in the country, that calls for it.

Great strides have been made in the development of the incubator within the last quarter of a century, until today the modern incubator is a reliable hatching machine, one that can be depended upon to perform the work called for. That the old hen is a good hatcher no one will deny, and if only a few chicks are desired she answers all hatching purposes. But even the hen cannot evade the natural time for sitting, viz., in the spring and summer time. If you want broilers in the fall and winter, or early pullets in January and February, you must have an incubator in order to hatch them. The old hen will sit only when it suits her own sweet will, and that is not always the will of her owner. By using an incubator you can set the eggs whenever you have fertile ones to place in it, and you can have broilers and roasters at any time of the year you wish.

The element of chance enters largely into the matter when hens do the hatching. They are often nervous and stop setting after a few days on the nest. Then the hens are often clumsy and break many of the eggs. This generally spoils the whole hatch, for the contents of a broken egg smear all the balance of the eggs in the nest, closing up the pores of the egg shell and stopping the hatching process. Even washing the eggs after they are discovered in a dirty state does not remedy the matter.

The hatching of eggs by hens must always be limited in number; large quantities at one time cannot be hatched. The incubator capacity on the other hand is limited only by the number of fertile eggs available and the owner's desire. It is much cheaper in the long run to hatch with incubators than with hens. The amount of oil required to run an incubator is very small, whereas with hens you lose their services as egg layers for several weeks, yet you must feed them as when laying.

While there are scores of different makes of incubators, there are but two systems in operation today, viz., the hot water machine and the hot air machine. Both kinds are run with the same kind of heat, viz., coal oil lamps. A few may be run with gas or electricity, but the rule is to heat them with kerosene lamps. The problem of artificial incubation is to keep a steady and uniform temperature of 103 degrees, with the proper degree of moisture. The problem of the right degree of humidity in an incubator is still an open one, some manufacturers claiming much more to be necessary than others. It depends a great deal on the state of the weather at the time of hatching, as well as the place where the hatching takes place, whether in a cool cellar or cave or in a dry room.

As to which is the better system, the hot air or hot water machine, the authorities differ, though probably there is

not much advantage in one system over the other. The makers of the hot water incubators think their machines are the best, while the makers of hot air machines think quite as strongly that their system is best. And there you are. We have tried both kinds at the same time with the same kind of eggs, and our results with each were satisfactory and in fact there was no difference in the results. With a hot air machine the heat of the lamp goes directly to the machine and it is heated much quicker than the hot water machine. On the other hand, should the lamp go out, the heat radiates very quickly and the eggs might get too cold before the fact of the lamp being out was discovered. With a hot water machine the heat is applied to the water first, which then goes to the egg chamber through copper pipes or a copper tank. While it takes longer to heat up a hot water machine, it also takes longer for the heat to disperse from the chamber, and if the lamp should go out at night there would be heat enough left in the chamber till the fault would be discovered. Of course, this matter of the lamp going out at

form heat is best. The temperature of eggs under a hen has been found to be from 101 to 104, the average being approximately 103. It is very essential that an accurate thermometer be used in every incubator. Each manufacturer sends what is claimed to be a tested thermometer with each machine. Sometimes these get broken, and another is purchased, which perhaps has a variation of several degrees below or above an accurate thermometer. While we have said that a variation of a degree or two occasionally will not make much difference in a hatch, a steady variation of several degrees might hurt every hatch; hence the necessity for an absolutely accurate thermometer.

As we have stated already, the question of how much moisture is necessary in an incubator is an open one, and depends on the evaporation of the eggs in the egg chamber. Moisture retards the evaporation of the egg, and some moisture must be provided to have good hatches. From frequent experiments it has been found that machines with moisture produce a 10 per cent better hatch and that the chicks from a moist ma-

The tray was reversible; that is, one part containing fifty eggs was sometimes in front of the machine and the other one in the back part, alternating their positions every day so as to give them an equal chance. We succeeded in proving to our own satisfaction that the eastern fellow was mistaken, for out of the fifty eggs on the part of the tray that we turned we had forty-six chicks and on the part that was not turned only three chicks. Our experimenting cost us at least forty chicks, when they were very desirable and valuable, but it taught us not to believe every fellow who takes a pen in hand.

The cooling of eggs during hatching is another necessity, but this is usually done during the process of turning. It depends somewhat on the time of year and the temperature of the room as to the time necessary for cooling. It is well to imitate nature in this. During warm weather a hen will stay off the nest for half an hour or more, while during cold weather she stays off only long enough to eat. We have forgotten the eggs at times after taking them out to cool, and left them out for three hours without any material damage other than delaying the hatch a trifle. Proper ventilation is also a necessity for a good hatch, but this is generally provided for in the make of the machine.

Testing the eggs is another operation that must be given attention. This is done from the sixth to the tenth day. Possibly two testing periods would be better than one—say on the sixth and on the tenth days. It is not always possible as early as the sixth day to decide which eggs are fertile and which are not. An expert might possibly be able to tell, but the ordinary incubator operator cannot be sure of all the eggs, and hence would be apt to discard some that were fertile. The object of testing is to eliminate the infertile eggs from the fertile ones so that a more uniform temperature may be maintained, and also to make more room in the egg chamber for the chicks when they are hatched. The testing is done in a dark room by holding an egg before a light of some kind. Egg testers are usually furnished with incubators.

The running of an incubator is not a difficult problem, the principal requisite being to see that the machine is run at the proper temperature. The care of the lamp entails no more trouble than the care of an ordinary house lamp. To see that the oil fount is kept properly filled, the wick kept in good order so that an even flame may be maintained, is about all that is required. The usual directions are that the eggs be turned twice a day after the first day and kept up until about the eighteenth day, or just as the chicks are about to pip the shell. After that the incubator should be let severely alone till all the chicks are hatched. Curiosity and over-anxiety often play havoc with the hatch at the later stages. Incubators generally have glass doors in front, primarily to permit of seeing the thermometer so that the proper temperature may be ascertained without opening the door, but also for the purpose of seeing the chicks come out of the shells without interfering with the incubator at the most acute stage of the hatch.

After the hatching is over it is well to take out the egg shells so as to make more room for the chicks. Usually a nursery is provided beneath the egg tray for the newly-hatched chicks, and it is best to let them stay in the incubator for a day at least. They need nothing to eat for forty-eight to seventy-two hours, Nature providing sustenance sufficient for them in the yolk of the egg to last three days. If the incubator has been run properly, the eggs will begin to pip on the nineteenth or twentieth day and hatching should be complete by the end of the twenty-first or twenty-second day. If the incubator has been run at too low temperature the hatch will be prolonged, which is not a good thing; in fact it is better to run it at too high temperature than too low. A successful hatch is the one where the chicks hatch almost at the same time, and not later than the twenty-first day. With fertile eggs, a successful hatch in a modern incubator is almost a certainty.



THESE EARLY-HATCHED PULLETS WILL BE FILLING THE EGG BASKET WHEN EGGS ARE HIGHEST IN PRICE.—THE COCKERELS ARE READY FOR MARKET WHEN BROILERS BRING TOP PRICES. THIS IS POSSIBLE ONLY THROUGH ARTIFICIAL INCUBATION.

night is only a contingency, and one not liable to happen with either system of machine if due care is taken.

Those contemplating the purchase of an incubator would do well to send to the different manufacturers for a catalog of their machine and read what they have to say as to the merits of their individual make. There are very few poor incubators made these days, and we believe all who advertise in KANSAS FARMER to be makers of first-class hatching machines, otherwise we would not accept their advertisements. However, each individual buyer has his own notion of what a good incubator ought to be and if the manufacturer's view of his machine tallies with the view of the purchaser, that is the machine for him to buy. He will have more confidence in it and take better care of it than he would of a machine the ability of which he questioned. The makers of all incubators send full directions for running their machine, and it is well for the buyer to follow those directions carefully. Hence it is hardly necessary for us in this article to give explicit directions for running incubators, although we may enumerate a few of the essentials to a good hatch.

First is the temperature, which should be as nearly as possible 103 degrees. A degree or two more or less will not necessarily spoil the hatch, though a uni-

chine are harder than those from a dry machine. The turning of the eggs in the machine is a matter of considerable importance. Several devices have been patented for turning the eggs in the machine, with sliding trays and slats, but nothing is so good as taking the tray out of the machine and turning the eggs with the hand, and changing the location of the eggs in the tray.

In an experiment at Cornell Agricultural Experiment Station the location of the eggs under a hen were observed each day during the twenty-one days of incubation, and the location of the eggs was discovered to be different every day of the hatch, thus proving that the hen in natural incubation turns the eggs every day. A writer in one of the eastern poultry journals not long ago claimed that turning the eggs in an incubator was unnecessary and that a lot of time was wasted in so doing. He claimed that the hen did not turn the eggs, but simply plumed herself a little after returning to her nest. He said wild birds never turned their eggs while hatching and that all this talk about turning the eggs once or twice a day was chimerical. To test his statement, we resolved to make a little experiment on our own hook. We placed 100 eggs in our incubator, fifty on one side of the tray and fifty on the other. One lot we turned twice a day after the second day up to the eighteenth day, as is usually done. The other fifty we did not turn at all.

AN ARTICLE having to do with brooders and their operation, by Thomas Owen, Poultry Editor of Kansas Farmer, will appear on this page early in January.

KAFIR AND MILO PLANTING

Early Spring Planted Crops Give Greater Assurance of Profitable Yields

WHEN I learned the editor of KANSAS FARMER was writing a book on the sorghums, I was very anxious to see it, anticipating much pleasure and profit from its reading. I was not disappointed. It is one of the most interesting and entertaining books I have ever read. Those parts pertaining to seed selection and preparation of the seed bed, seeding time, harvesting, etc., are especially valuable and I do not believe can ever be improved upon. There is only one point in your book on which I do not agree with you. That is "early planting," and when reading the following, please bear in mind I am only speaking for my particular section—Northwest Kansas.

Of course, well selected seed and a well prepared seed bed are indispensable factors to any crop, but I fully believe that one great reason for unsatisfactory results in grain sorghum growing here is early planting. The average farmer in this section lists sorghums the latter part of the corn-planting season. He plants at this time because the weeds are starting and he must either list or work the ground over to destroy the weeds—so he lists. Of course, listing destroys this crop of weeds if it is done early enough. But the result is that the kafir and milo come up rather slowly and are weak, feeble plants because of the lack of heat. They grow to a height of about one inch and stand waiting for more heat.

Corn planted at the same time grows rapidly and by the time the second crop of weeds is starting the corn is large enough to have some soil thrown into the ditch around it, thus killing all the weeds. Not so with kafir and milo, because the weeds are as large or larger than the plants. An attempt to cover the weeds covers the sorghum plants also. If cultivating is not thoroughly done at this time the weeds must be cut out with a hoe, for they can never be plowed out. The result is a short crop.

I have seen this result year after year. I had some experience along this line this last season. There was a short time just after corn planting time when I was not so very busy but knew I would be rushed later on. Against my better judgment I utilized this time by listing kafir and milo. I had fine, "water-cleaned" seed, too. The results were the same as usual. I had to replant part of the kafir, and I did it this way: I detached the drill from the lister and hitched one horse to it, drilling in the same rows. This drill loosened the entire bottom of the furrow and destroyed all the weeds there. Then we followed with the weeder and that made the field clean. The soil was at this time warm and the kafir came up at once and grew rapidly, making a fair crop. We cleaned the milo field by hoeing.

Next season I shall disk the ground as early as possible in the spring and harrow often enough to keep the weeds down and destroy crusts. About corn-planting time the weeds will come on so fast that the harrow will not do much good any longer and I will then list the ground, taking off the planting apparatus, but loosening the bottom of the furrow to keep it from drying. When it is about time to weed corn the weeds will be starting again on this land. Then with a one-horse drill I will plant in the lister furrows, taking care to loosen the whole bottom of the furrow, and will follow immediately with the weeder. By this time the ground will be warm and the sorghums will grow rapidly. I believe by this plan I can conserve the moisture and keep down the weeds until the ground is warm enough for the sorghums to grow rapidly. On a properly cultivated field where no crop is growing there is not a great amount of evaporation this early in the season.—ED WRAY, Norton, Kan.

The date on which the sorghums may be safely planted is of course governed by the season and the condition of the soil. This date may vary a week or ten days on adjoining farms or adjoining fields. This even though the soil is of the same character. For instance, land worked in the fall or early in the spring will permit of earlier seeding than land which has not been worked at all until planting begins. This condition is more marked in the central and eastern thirds of the state than in the western third and is due to the difference in rainfall. The seed of sorghums will not grow in

cold, wet ground, and when planted in such ground, if it be weedy, there is the objection as presented by Mr. Wray. It is desirable always, however, to plant sorghums—especially those desired for grain—in clean ground. This to avoid damage to the growing crop by weeds through any enforced delay in cultivation and which delays frequently occur because of rains in the early spring months.

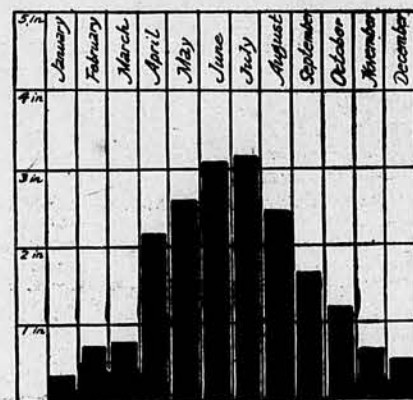
The sorghums can be planted earlier if surface planted. Listing is not favorable to the early starting of the seed. To surface plant requires the working of the ground in advance of planting and such ground becomes warm more quickly than ground not worked. Recently we had a letter from a Cheyenne County farmer who advised that he had this season planted milo on the surface and the results were so much more satisfactory than by listing that he did not believe he would ever again list. He gave as his reasons that he could plant earlier because the surface ground became warm quicker and that the plants grew readily and steadily as soon as the seed germinated. This advantage, however, may in the West be more than offset by the possible damage to the crop by blowing, listing being recognized as the best method of planting to controvert blowing damage. So listing in the West may be essential and the best method. We

think it is, but the ground can be listed in the fall, the middles can be split in the early spring and the advantages of fall plowing are not greatly discounted by this method. The crop then can be shallow listed and damage by blowing reduced to a minimum.

The advantages of early planting are to enable the crop to utilize the early rainfall. Below is a chart showing the rainfall by months for the western division which for all practical purposes may be considered the western third of Kansas. It is to be noted that the April rainfall is more than three times that of March, that the May rainfall is increased about a half inch and the June and July another half inch as compared with May, but that in August and continuing through the remainder of the year there is a marked decrease. It would seem desirable, therefore, that the crop be gotten into the ground as early as possible, that it be given every opportunity to utilize the early rains and to arrive at as near maturity as possible in advance of decreasing rains and excessive temperatures. It should be remembered that an inch of rainfall in the early part of July is worth much more to the growing crop than an inch the latter part of July. This because of the evaporation resulting from heat and wind in the earlier growing season is not so great as in the later growing

season. The monthly rainfall throughout the state is in practically the same proportion as shown in the chart and is an argument for early planting throughout the state.

The success with which the sorghum crop may be planted early is largely dependent upon the vitality of the seed. The average seed of kafir, milo and feterita have in the past been considered of



SHOWING AVERAGE ANNUAL RAINFALL IN INCHES BY MONTHS FOR THE WESTERN THIRD OF KANSAS

low vitality and rightly so. This because of the manner of storing the seed. That seed which has been held in the bin from the time it was threshed in the fall until planting time in the spring has in most instances either become moldy as a result of dampness or has heated as is a natural tendency when the weather becomes warm. Such seed will produce weak plants—plants of low vitality and which will not endure the seasonal adversities. It is this kind of seed which has resulted in the later planting of the sorghums year after year and which is responsible for the general belief that they should not be planted until the weather is warm and the ground warm. Seed of the earliest maturing heads gathered in the field so soon as thoroughly mature and which have been so hung in a dry place that they will thoroughly dry and kept in this condition until spring, will prove seed of such vigor as will permit of at least a week to ten days earlier planting and which will survive adversity. The plants will grow more rapidly, they will not so easily succumb to the weeds, the fields can be cultivated earlier and the rapid growing and early development forced and for the reasons above indicated it would seem that to have the crops as nearly matured as possible before the dry spell of the fall sets in would add to crop assurance. Of course the time of planting, anywhere and of any crop, is regulated by soil and seasonal conditions, and any statement regarding early planting should be understood as taking these conditions into consideration.

There is evidence that feterita should not be planted as early as kafir or milo. Because this crop will mature its first heads ten to fifteen days earlier than common strains of either kafir or milo, it need not be planted so early as these. Those strains of kafir and milo, however, which are the result of early maturing head selection, are maturing throughout Kansas as early as feterita.

It must be remembered that in Northwest Kansas there are 140 days between the average date of the last killing frost in the spring and the first killing frost in the fall. The growing season, however, is not this long, because at each end of the period the nights and days are too cool for plants to grow. We do not believe it amiss to say that there is not in excess of an average of 115 days of actual growing weather in the northwest corner of the state. Since it requires eighty-five to ninety days for the better strains of kafir and milo to produce a crop, and since the crop is likely to be checked in its growth by lack of moisture beginning with the month of July, it is apparent how early planting and the forcing of the crop to maturity is likely to result in increasing the crop chances and so be advantageous.

"It is hard for the people of this great rich Mississippi Valley to realize how fortunate they are even when the countries of Europe are ravaged by war," says an exchange. "This is indeed the region of greatest opportunity favored not only by its wealth-producing soil, but by its privileges of independent citizenship."

MADE GOOD GARDENING

Good Living and Some Besides, Healthful and Profitable Work—By Anton Horkman



HOME OF ANTON HORKMAN, GARDENER, CONCORDIA, KANSAS.

I WAS one of a family of ten children. My parents were poor and at the age of twelve I was taken out of school to help support the family. I worked for the gardeners of Concordia for four years. I then took what little money I had and bought a pony, harness and spring wagon and began to work for myself. The first year I rented an acre of ground and also worked the acre of ground on which my parents live. I did fairly well that year and the next year I rented five acres of ground. I did my own peddling from house to house and established a good trade. I early realized the importance of washing the vegetables and tying them, making the wagon look neat and attractive and having my own clothes neat and clean. My customers learned that I was dependable. It pays to be kind and good-natured even if one does not always feel so. A neat, tidy wagon and driver count for half in selling the vegetables grown.

I worked the five acres two years and then decided to branch out. I bought a big horse and a one-horse wagon. I made sixteen hotbed frames and a lot of glass sashes so I could raise lettuce and radishes in the winter and follow with tomato, cabbage and sweet potato plants in the spring.

My father, who is in business with me at the present time, worked for me for a time but later became my partner. To him as well as to myself belongs credit for our success. He started in the bee business and this has always proven a good side line. We also manufacture horse radish, which helps the business.

We worked the ten acres until we thought we needed more, when we bought the ten acres we had been renting and went in debt for five more. On this five acres we planted gooseberry bushes and grape vines. At that time we bought another horse. We worked the fifteen acres until five years ago, when we bought five acres more. We now have twenty-one acres, counting the acre on which my father's house stands.

For the last two years we two have tended this garden and have done the peddling, in addition to taking care of sixty-five stands of bees. Of course, we have to work hard—sometimes fourteen hours a day—but we are healthy and enjoy our work.

We have no bad habits—such as chewing, smoking, or keeping late hours—and this goes a long way toward keeping a person well. We are both trying to live Christian lives so that we may be examples for others to follow. We have made a good many mistakes in our business, but we always remember them and do not make them the second time. We love our home above all things and around which I think every man's thoughts should center.

I hope our experience will encourage others. They should not become discouraged if success does not come in a year or two. I have worked at gardening for eighteen years. I do not yet know it all, nor do I expect to ever know it all.

THE FARM



SUBSCRIBER G. S. L., Wyandotte County, writes: "Have you or any of your readers any information as to the effect of feeding cottonseed meal year after year on the health of dairy cows?"

"I am thinking of feeding cottonseed meal to dairy cows, but am told by some of my neighbors—who, however, admit they have never fed it—that it is all right for short feeding of beef animals, but disastrous when fed to cows year after year."

This editor will be glad to hear from KANSAS FARMER folks who have been feeding cottonseed meal successive years to milk cows. There are undoubtedly many farm dairymen among our readers who have done this and their experience will help not only this subscriber but others who may be contemplating the feeding of cottonseed meal as the cheapest protein concentrate they can buy.

The editor in his dairy herd fed cottonseed meal each fall, winter and spring feeding season for a considerable term of years. This to a herd of heavy milking cows. The meal was fed in quantities varying from two to four pounds per day. It will be realized that such feeding was necessary to supply heavy milking cows with the protein they needed when the roughage consisted of kafir, cane, corn fodder, millet, prairie hay, etc. The cottonseed meal was fed with wheat bran, this being in the days when bran sold at from \$4 to \$6 per ton when contracted for in the fall of the year. We observed no ill effects from the feeding of cottonseed meal, either in so far as the health or breeding qualities of the animals were concerned, and feel warranted in saying that cottonseed meal can be safely fed in such quantities year after year. The amount necessary to feed will of course depend upon the amount of milk given by the cow and the amount needed to make a balanced ration.

We do not find a thing in Henry's "Feeds and Feeding," a book which is the feeder's guide the world over, indicating injurious results to milk cows following the feeding of cottonseed meal. We find reported therein trials wherein cows have been fed as much as seven to ten pounds per day. The average, however, ranges from two to four pounds.

In wintering breeding cows on cottonseed meal as the principal part of the ration at the Hays station a few winters ago, there was some suspicion that it was unsatisfactory from a breeding standpoint. However, this is a matter which will be further investigated before anything can be definitely determined.

Cottonseed Meal for Horses.

Our correspondent, F. J. W., of Edwards County, writes us to ask whether he can use cottonseed meal as a part of the grain ration for his farm work horses. He is now feeding corn and cob meal ground fine, grinding only good clean corn. This inquiry does not state what ration or hay is being used in this ration. Cottonseed meal has been very successfully used in horse rations, especially in the South. It has also been tested experimentally by a number of the experiment stations. The North Carolina station reports very successful use of rations containing two pounds daily of cottonseed meal. It has been fed in quantities of one pound daily to driving horses.

A combination of 600 pounds of finely ground corn and cob meal and 100 pounds of the cottonseed meal from the standpoint of nutrients would be very well balanced for feeding a work horse. Fourteen pounds of this mixture would contain 1.28 pounds of digestible protein, 7.6 pounds digestible carbohydrates and .54 pounds fat. To complete the ration this, of course, should be supplemented with some good bright roughage. Clean bright corn fodder or kafir fodder could be used for this purpose. If the horses are not doing very heavy work, the amount of grain should be lessened in quantity, feeding only a sufficient amount to keep them in good thrifty condition without laying on an undue amount of fat.

Our correspondent also wishes to know whether there is any formula for worm medicine which can be mixed with salt for hogs. The government hog tonic, the formula for which was given on page

six of our December 5 issue, is a good one to use. The use of copperas or iron sulphate in the slop is a good tonic and to some extent acts on the worms.

Our correspondent wishes instruction as to the methods to follow in vaccinating for hog cholera. These instructions can be secured from the veterinary department of the Kansas Experiment Station at Manhattan, but our reader should bear in mind the fact that the breeder must first secure permission from the live stock sanitary commissioner before attempting to vaccinate hogs for the prevention of cholera. The rules and regulations governing this matter will be mailed on request to the office of the Live Stock Sanitary Commissioner, Topeka, Kan.

Deep Plowing in Riley County.

Our subscriber, V. V. A., Riley County, sends this statement regarding deep plowing done by one of his neighbors. The article was first printed in a local paper of that county:

"Some work that is being carried on or conducted right here in Eureka Valley by James Conroy is of too much importance to pass by without farther notice other than gained by a visit to Mr. Conroy's farm. He purchased a deep tillage plow and has been doing some work with it which has proven very satisfactory. This plow is so constructed that it has one disk below another arranged in such a manner that an operator can plow from twelve to sixteen inches deep, and, unlike the ordinary plow, it is so arranged that instead of turning the under portion of the furrow slice on top, it thoroughly mixes the whole mass from top to bottom of furrow. Now it is a well known fact among farmers that there are a great many of these soils which have a very heavy and impervious subsoil which, if it were plowed very deep with an ordinary plow, throwing the bottom of the furrow slice up on top, would yield very poorly for a year or so unless the seasons were very favorable. Many people have had just such experience and apparently failed. Some writers claim there is a soil bacteria that permeates the soil just as deep as the ground is worked and that these same bacteria help to prepare plant food. The reason, then, we would find for the heavy slice of new dirt being thrown to the surface not yielding proper crop returns for a year or so, would seem to indicate a lack of these bacteria. Farmers who study these questions are all agreed that a deep seed bed is better than a shallow one, and the only way to get it with the ordinary plow is to go just a little deeper each year until the final results desired are accomplished.

"With the machine Mr. Conroy has he plowed 12 inches deep last year and he got results, and results are what we are all after. He is plowing a lot more of his ground deep this fall and thinks there is nothing like it. It hardly seems possible that it would double the corn yield, but that is what he says, and invites people out to make observations for themselves. There are thousands of acres of land around Manhattan that have a very similar subsoil and there is not much doubt but what a little visit to Mr. Conroy's farm to see what he is doing along this line would be very interesting and profitable.

"The world is full of hot air vendors and when we see a fellow like Mr. Conroy get a theory in his head that a particular kind of tool will solve a problem for him and then back his judgment with his money, and then prove that he is right by doing the very thing he set out to do. Such a man is an invaluable asset to any community. What we need and want is people who do things."

If the 1915 legislature heeds the recommendation of Professor Dyche, State Fish and Game Warden, it will pass a bill providing that the present hunting license be made to include fishing and that a fee of one dollar be charged for the same. At present it costs a dollar a year to hunt, but the fishermen pay nothing. It is proposed that boys under fifteen be allowed to fish without a license and in this way the inalienable right of the boy will be protected. Thus, one by one, do the privileges of a free people pass.

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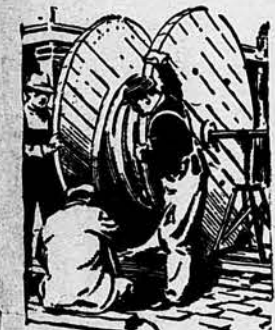
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Canada is Calling You to her Rich Wheat Lands

She extends to Americans a hearty invitation to settle on her FREE Homestead lands of 160 acres each or secure some of the low priced lands in Manitoba, Saskatchewan and Alberta.

This year wheat is higher but Canadian land just as cheap, so the opportunity is more attractive than ever. Canada wants you to help to feed the world by tilling some of her soil—land similar to that which during many years has averaged 20 to 45 bushels of wheat to the acre. Think what you can make with wheat around \$1 a bushel and land so easy to get. Wonderful yields also of Oats, Barley and Flax. Mixed farming is fully as profitable an industry as grain growing.

The Government this year is asking farmers to put increased acreage into grain. Military service is not compulsory in Canada but there is a great demand for farm labor to replace the many young men who have volunteered for service. The climate is healthful and agreeable, railway facilities excellent, good schools and churches convenient. Write for literature and particulars as to reduced railway rates to Superintendent Immigration, Ottawa, Canada, or to

GEO. A. COOK,
125 W. 9th St., Kansas City, Mo.

Canadian Government Agent.

Classified Advertising in Kansas Farmer Sells Pure Bred Stock

FOR the breeder with only a limited number of breeding animals for sale and who perhaps does not feel justified in incurring the expense of carrying a breeder's card regularly, KANSAS FARMER's classified advertising is an extremely cheap as well as a sure method of reaching buyers, and a few issues will sell the offering. If you have live stock, pet stock, poultry, lands, seeds, plants, implements, vehicles, automobiles, etc., to sell, or if you want to buy or exchange, remember that in these classified columns is the market place for these thousands and thousands of possible customers, and that the cost of reaching them is very small. See head of classified columns for rates.

ADVERTISING PAGE FOR READY BARGAINS.
READ KANSAS FARMER'S CLASSIFIED

DAIRY



An exchange remarks that people should not hesitate to borrow a good idea. It says that about half the ideas and thoughts in the world are second-hand anyhow. It's just as much of a distinction to put an old idea to a profitable and legitimate end as to be sponsor for a new one. We wish KANSAS FARMER folks would let the suggestion soak in. It is not necessary that you adopt any new and untried idea in building up a profitable herd or in the proper care and feeding of that herd. The principles of successful dairy practice are as old as the hills. They are in use by some farmer in your neighborhood. Find the man who is making the most money from his cows and follow in his footsteps. He has no patent on the principles, ideas or plans he is following. They are as much yours as his, and you need not feel discouraged because you cannot think of some new thing or way or doing things.

Salina is busy in an effort to induce the location of a milk condensery in that city, and according to the newspapers the matter has so far progressed as to result in the purchase of a building site. If each of the Kansas towns bidding for condenseries should succeed in actually building and equipping such factories (we will gamble that within eighteen months at least one-half the number will be for sale at 25 per cent of the original cost. Condenseries can be built anywhere if the money can be obtained, but condenseries cannot be operated without adequate milk supply and this supply can come only from the milking of cows within reasonable driving distance of the condensery. There are at least a half dozen points in Kansas making bids for condenseries in which the present milk supply is not sufficient to maintain a one-man creamery. It is the part of wisdom, gentlemen, to build up the cow-milking end of the industry in advance of the manufacturing end. If you have the money and the business judgment to proceed in the same manner as did the company which built its own condensery at Mulvane, the situation at once is apparently different. That company supplied the money with which to purchase cows for its patrons, selected the cows, hired the haulers and in other ways promoted the cow-milking end of the business to a satisfactory milk supply. Condenseries, however, organized on the stock company plan will not be able to avail themselves of such organization as existed in the case of the Mulvane institution and are quite likely to fail.

Several weeks ago we stated that a meeting of the dairy commissioners and food commissioners of the Northwest and West would be held in Des Moines, Iowa, early in December to discuss rules and regulations for the grading of cream. The meeting resulted in the declaration that cream for butter-making should be bought on grade and that the officials of each state would do all in their power to establish grading and maintain it. It was believed that three grades should be established each known and described as follows: Extra, is special grade cream which is sweet and suitable for table use and such as will not curdle in hot water, tea or coffee. First grade shall consist of cream that is clean to the taste and smell, slightly sour, containing not to exceed four-tenths of 1 per cent acid and not less than 25 per cent butter fat and free from lumps, curd, dirt and all other foreign matter. Second grade is cream that is too sour to grade as first grade or that which may have weedy or other undesirable flavors or odors. All other cream shall be deemed illegal. Illegal cream is that which is very old, rancid, moldy, dirty or muddy, or that produced from an unclean separator or that stored, handled or transported in unclean cans or that which has been produced, handled, separated, stored or transported in violation of the state dairy, pure food or sanitary laws and the sale, purchase or manufacture of such cream for any human food purposes should be prohibited by statute. The committee which presented the standard for these grades and which standard was accepted, was composed of Professor Frandsen of the dairy department of Nebraska Agricul-

tural College, J. B. Newman, assistant state food commissioner of Illinois, and A. P. Ryger of South Dakota. It was the expressed intention of those in attendance to attempt to secure a law in the different states that will require grading and have the grades as recommended above incorporated in such law.

Most farm dairymen who keep good cows and give them good care say that taking one year with another, dairying pays better than any other branch of their farming operations. There are many farm dairymen who in seasons of plentiful feed and mild weather admit that the milking of cows pays, but in seasons of short and high-priced feed and when weather conditions are not favorable, claim cow-milking does not pay. The latter class of dairymen, if they desire to remain in the business and to make as much money as they can from it, must avail themselves of the cheapest milk-making feed and must grow on their farms those crops which are most likely to yield the feed needed. The farm dairyman must, so far as is possible, have a normal feed supply from year to year. There are seasons in Kansas particularly favorable to the production of all crops, when two or three times as much roughage and grain is grown as the normal supply of farm live stock can consume. It is the part of wisdom to carry a supply of feed from the fat year for the lean year. That this can be done is not disputed. The fat year will fill an extra silo with roughage which as a milk-producing feed is invaluable and cannot be matched by any other farm roughage. A stack of alfalfa hay carried over from the year of abundant production into the short year will result in a supply of feed unequaled by any other hay. There are numerous farm feeds which may be carried from year to year and most of which would require only a little care and extra labor in stacking. There is enough feed wasted in Kansas during each fat year to provide, if saved, the feed needed during the lean year. Dairying, as farming in general, is a year-after-year business. It is not a business which can be gotten into this year because conditions are right and gotten out of next year because of unfavorable conditions. Every cow-milking farmer should put himself in position just so soon as is possible to accumulate at least a year's feed supply. Butter is usually the highest in price when feed is high. Feed is expensive when it is scarce. The man who is able to carry over feed is able to feed at low cost and sell that feed in the form of butter at the highest prices. Commodities of all kinds are nearly always cheap when there is a surplus. The most money is made by the man who has the commodity to sell when in general the commodity is scarce and the price consequently high.

How were you prepared to take care of the milking cows during the recent snow and cold snap? A Shawnee County dairymen who delivers milk for domestic consumption in the city of Topeka and who gets 10 cents for each quart, complained to the editor a few days before these lines were written that the cold weather had reduced the milk flow of his herd 50 per cent; that is, cut it in two, and that he was losing, as a result, \$10 a day in money and that his loss was even greater than this because he was losing patrons to other dairies which were supplying his customers. We chanced to meet another dairymen who is in the same business of selling domestic milk, and we inquired if during the cold spell he had been able to maintain the milk flow of his herd. He replied that he had not only been able to maintain it but had increased it. He said when it was necessary to keep the cows in the barn on account of unfavorable outside weather the boys always did a little better feeding, the cows ate more and seemed more contented and consequently gave more milk. He said that he couldn't afford to expose the cows to the weather and so incur a shrinkage in milk flow. The latter dairymen had the right viewpoint. He had, in fact, the only businesslike viewpoint in connection with cow-milking. The man who is milking and feeding cows is doing so for no business other than for

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WHAT THE RAILROADS DO WITH THEIR INCOME

WHY THEY ARE CONSIDERED THE GREAT BUSINESS BAROMETER OF THE NATION

In contemplating the crisis which confronts the railroads at the present time, and which was briefly explained in last week's article, it is important for the reader to realize that the railroads and the public face each other under radically changed conditions today from those which prevailed a few years ago. The abuses and scandals which have been aired before the Interstate Commerce Commission during recent months were perpetrated for the most part under the old regime of a dozen or so years ago, and can never be repeated under the conditions which now prevail. On the one hand, the Interstate Commerce Commission and the different states either through their Public Utility Commissions or Legislatures, say what rates the railroads shall charge for service. In addition to this, a proposal is now pending in Congress to give the government the right to investigate all new interstate securities before they can be placed upon the market, while similar authority is already being exercised within the states by the different public utility commissions, including Kansas. This means that the last vestige of control over their finances will have been taken away from the railroads and that henceforth their fate will lie absolutely in the hollow of the people's hands. In this connection, we wish to again remind the reader that the hundreds of honest railroad officials throughout the country—men who have managed their properties without a breath of scandal or public criticism—should not be condemned because of the misdeeds of the few. With an aroused public conscience on the one hand and scores of railroad officials throughout the country sincerely and actively co-operating with the different public authorities on the other, we can safely let bygones be bygones—wipe the slate, and, with a square deal for the people, the investor and the railroads alike, "start over again."

THE PRESIDENT'S ANXIETY.

In last week's article we quoted a portion of President Wilson's recent reply to a group of Eastern railroad executives. That the President has become profoundly concerned over the present crisis which confronts the transportation companies is once more made strikingly apparent in his letter concerning the inauguration of the new banking system to Secretary McAdoo a few days ago. In this letter he referred to this matter in the following language:

"The railroads of the country are almost as much affected (by the war), not so much because their business is curtailed as because their credit is called in question by doubt as to their earning capacity. There is no other interest so central to the business welfare of the country as this. No doubt, in the light of the new day, with its new understandings, the problem of the railroads will also be met and dealt with in a spirit of candor and justice."

Like utterances have come from scores of other prominent public men and financiers during the last few weeks—men who are above making a selfish plea for any private or corporate interest and whose sole desire is that American Business shall emerge from the present precarious situation without disaster. Under these circumstances it is the merest folly for any citizen to treat the present crisis lightly or flippantly, for we are passing through a period in which the financial resources of every nation in the world will be tested as never before.

WHERE RAILROAD RECEIPTS GO

In order that the reader may realize what a tremendous factor the railroads are in the every day business life of the nation and what they mean to its prosperity, we wish to analyze briefly what becomes of an average year's railroad income. Just as the idea has prevailed in the minds of many that the railroads are owned by a few rich men, so the thought has also found deep root that they collect millions of dollars from the public which go into the coffers of a handful of millionaires, and which are

permanently withdrawn from the thrift and industry of the people.

At the close of the fiscal year ending June 30, 1913, the records at Washington show that the railroads of the United States had collected a gross income from all branches of their service amounting to \$3,118,929,318. Of this sum, \$1,373,830,589 was paid out for labor—or, to put it in another way, almost 50 cents out of every dollar they took in was immediately paid out to the hundreds of thousands of men and women whom they employ in the conduct of their business. For maintenance of way, equipment, depots, etc., they disbursed \$929,167,491—or almost another thousand million dollars—and in this vast item the reader can grasp what railroad prosperity means to the great steel mills, the lumber and coal industry, the big car and locomotive building concerns, and other sources of railroad supplies. In taxes they paid out the enormous sum of \$129,052,922, which helped to maintain the public schools, public highways and other revenue expenses of every state, county and incorporated town and city in the country. After the interest had been paid on their funded debt and all other characters of expense had been met, they had \$153,428,876 left out of which to declare dividends and to use as a surplus fund for emergencies of one kind and another.

In other words, after the railroads got through paying for their labor, steel, lumber, coal, interest and other necessary expenses, the above little more than \$153,000,000 was all the surplus they had left for themselves out of an income of more than three billion dollars—and this, too, upon properties worth the gigantic sum of twenty billion dollars, or less than 1 per cent on the total investment. Thus it can be seen that on the basis of the present rates the railroads pay back to the public in one way and another practically every dollar they receive for service.

BURNING CANDLE AT BOTH ENDS

As a matter of fact, if every railroad in the country had charged off a proper percentage for depreciation, instead of having had a surplus of \$153,000,000 left in 1913 they would have had an actual deficit running into the millions. Some of the larger systems have a fixed yearly depreciation charge—but scores of the weaker liners, in their frantic endeavor to pay the interest on their debts and maintain the standing of their securities, use every dollar of their income to this end, and hence one of the most alarming phases of the present railroad situation is that this process of "burning the candle at both ends" means a deterioration of rolling stock and roadbeds which will render the continuance of adequate and safe service for the public impossible. In a recent article, James J. Hill, the great "Empire Builder of the North," points out that American railroads should spend at least \$500,000,000 annually in improvements and betterments—and it is therefore no exaggeration to say that rapidly deteriorating equipment is one of the ghosts which haunts hundreds of railroad managers throughout the country at the present hour.

As was stated in last week's article, the operating income of the railroads for the fiscal year ending June 30, 1914, was \$120,000,000 less than for 1913, while expenses and taxes were \$76,000,000 greater. It can therefore be seen at a glance that unless the railroads are given some increase in rates in the very near future the time when many of them will go upon the rocks of financial ruin is not far off—and yet the slight increase necessary to save them is so small that the average citizen would not be conscious of it after it had gone into effect. In a future article this question will be more fully discussed.

A BAROMETER OF PROSPERITY

It is an old saying that when the railroads are prosperous everybody is prosperous, and the manner in which their income is disbursed, as above explained, tells the reason why. In short,

for years they have been regarded as the great business barometer of the nation. No other industry in the country employs so many men as do the railroads, and, furthermore, it is a high grade of labor employed upon as lucrative a basis as obtains in any other large industry. When times are good nearly two million people, first and last, are employed by the railroads, and when this vast army is working full time and is contented the millions they pay out for merchandise and for the living necessities produced on the farm cannot help but have a tremendous effect upon the commerce and agriculture of the country.

But this is only half the story. Aside from the nearly two million operatives directly employed by the railroads in normal times, the hundreds of thousands of men who work in the great steel mills, the coal mines, the lumber industry and in the big car and locomotive shops are equally vitally affected, for when the railroads are making extensive improvements and buying heavily of these supplies it means that these great industries are running full shift, while when the railroads are subsisting only upon the absolute necessities it means that many of them are only working half shift.

FARMER VITALLY CONCERNED

That the farmer has a very vital and personal interest in this situation should be apparent at a glance. When the millions of laboring men in the United States are profitably employed and when all our great industrial enterprises are running full shift it means that he will have a larger demand and receive a higher price for the things he produces on his farm—for his corn, wheat, pork, beef, mutton, cotton, wool and other farm products. In other words, so interdependent have we become, and so closely allied are the interests of the farmer, the merchant, the manufacturer, the laborer and every other great national industry, that the prosperity of one has become the prosperity of all. (Paid Adv. To be continued next week.)

the profit which comes through the milk produced. Unless he so feeds and handles his cows that the milk flow is maintained it is certain that he is a loser financially. The first dairyman mentioned above will not this winter be able to re-establish this lost milk flow. He will be short all winter and spring and cannot expect a material increase until the sun shines warm and the grass is green next spring. There are thousands of farm dairymen throughout Kansas who will have the same experience and who will feel that they are not getting value received for the feed consumed by the cows and for the labor expended. The shrinkage in the milk flow during a cold spell may represent the actual net profit in keeping the herd. It is apparent, therefore, that profitable dairying is dependent upon such feeding and care during the winter and during unfavorable weather as will enable the cow to produce milk to the maximum of her capacity. We do not know just how the first dairyman was fixed in the matter of feed and buildings, but it is altogether probable that he was without palatable and succulent feed and also that he has no buildings for sheltering his cows. Profitable dairying cannot be done under such conditions. We do know that the second dairyman has silage, alfalfa hay and a comfortable but not expensive barn. These latter are essential in money-making cow-milking.

Concrete on the Farm.

Concrete is now used not only in cities and towns but on farms and in rural communities as well. The modern farmer uses it for foundations, sidewalks, basement floors, feeding floors, buildings, water tanks, silos, fence posts, and numerous other purposes. There is much to learn about concrete construction. The Kansas Agricultural College will this season give a short course which is intended for farmers who wish to do their own concrete work and for cement workers and contractors who wish to increase their knowledge of the subject.

Pit Silo Dangers.

Several deaths have resulted from asphyxiation in pit silos in Kansas. Four men perished recently in a pit silo in Ohio. Attention to this danger is not called with the idea of condemning the building of pit silos. But, it is a warning to be careful. Ventilate the silo.

In fermenting, silage throws off gases that force the free oxygen in the air out of an enclosed or partly enclosed space. Without oxygen to breathe the animals can't live a minute, and when a man jumps

into a silo or enclosure filled with these gases asphyxiation immediately follows. Where the continuous door system is used, as in silos built above ground, there is provided a good circulation of air that insures absolute safety, but the pit silo that has no opening save at the top should in some way be ventilated, the ventilator extending at all times to within a few inches of the top of the silage.

Sunflowers vs. a Corn Crop.

That sunflowers use three times as much moisture as the corn plant is a fact recently found to be true at the Nebraska Experiment Station. After comparing several corn and sunflower plants during the growing season up to September 1 this year, it was found that the average amount of water used by a corn plant was four-fifths of a barrel, weighing 300 pounds. The average amount of water used by a sunflower was two barrels and a keg, weighing 952 pounds. From this it would appear that the farmer can well afford to keep down not only his sunflowers but all other weeds which are robbing the soil of moisture needed to grow a crop.—Nebraska Bulletin.

Growing Alfalfa.

"We are now sowing alfalfa in a section where it does not grow naturally. We find that well drained fields, well tilled, well fertilized, well limed and well inoculated, will grow alfalfa as readily as corn," writes G. W. Buah, agricultural agent, Oneida County, New York. The Kansas who would grow alfalfa and who has not in the past been successful in obtaining a satisfactory stand, should carefully read and re-read the above lines. The man who is located in the eastern half of Kansas and who has not obtained a stand, will find his field lacking in some one of the above respects. It is necessary only that the particular respect in which the field is lacking be determined and this corrected, in order to grow alfalfa or clover successfully. It is not amiss to say that in the western half of the above section the matter of thorough preparation of the seed bed by good cultivation, is most needed. In the eastern and southeastern sections liming and manuring will overcome the difficulty on most farms.

Vacant Public Lands in Kansas.

The following acreage is that of the vacant public lands in Kansas. Neither the general land office nor the local land officers can furnish information as to the location or details as to character of soil of such tracts, but such information may be obtained from the records of the local land offices which, when not in official use, are open to inspection by prospective homesteaders. Before entry, personal inspection of the lands should be made to ascertain if they are suitable, and when the applicant is satisfied on this point entry can be made at the local land office in the manner prescribed by law and under the direction of the local land officers. The following vacant unappropriated public lands are subject to entry under the homestead laws. Those upon which entry may be made through the Dodge City office are as follows: Barber County, 268 acres; Clark, 1,188; Comanche, 320; Edwards, 225; Finney, 2,391; Grant, 560; Gray, 40. These lands are described as being broken and sandy. Ford County, 30 acres; Ness, 200; Scott, 1,793; Stevens, 2,809. These lands are described as grazing lands. Greeley County, 6,806 acres; Haskell, 160. These are described as agricultural lands. Hamilton County, 19,049 acres; Kearney, 1,320; Meade, 6,820; Seward, 6,315; Wichita, 280. These lands are described as grazing, broken, sandy. Morton County, 11,633 acres; Stanton, 5,511, and described as grazing and agricultural; Hodgeman County, 40 acres, described as broken; Lane County, 2,231 acres, described as grazing and broken; Stafford County, 41 acres, described as swampy. Total, 70,860 acres.

Land subject to entry through the Topeka office and all of which is described as rough and broken is as follows: Cheyenne, 16,780 acres; Ellis, 40; Gove, 4,380; Logan, 4,180; Wallace, 3,260; Rawlins, 2,320; Sherman, 320; Trego, 80. Total, 31,360.

Passing It Along.

Johnny had been talking a good deal about the things he was going to get for Christmas, so his father reminded him that it is "more blessed to give than to receive." Accordingly his father was greatly surprised to see over Johnny's stocking on Christmas Eve this message written in his childish hand:

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LIVE STOCK



Secretary Houston in his annual report which is just now being distributed, devotes several pages to the subject of our meat supply. The Federal Department of Agriculture has recognized the situation the nation is facing and, realizing the urgency of the problem, the secretary has appointed a committee consisting of the best authorities he could discover, to make a systematic study of this subject. This committee has been instructed to make a survey of the whole field and will report at the earliest practical moment its findings. This investigation of the committee will embrace not only the study of the production of meat, but will go into the consumption, marketing and distribution.

Even before this committee makes any report there are certain facts which stand out clearly at the present time. Secretary Houston goes on to say in this report, "It is evident that we have been considering the meat supply of the nation too exclusively in terms of the big ranch and of beef animals. Obviously it is important that we continue to help the cattlemen and to assist in further developing the big ranch. No pains will be spared to do this. The Department is now spending money to develop the live stock industry in connection with the reclamation projects and is asking for more. But unquestionably the largest hope for a considerable increase in our meat supply lies in four other directions: First, in a more satisfactory handling of the public grazing lands; second, in systematic attention to the production of beef animals in the settled farming areas of the country, particularly in the South; third, in increased attention to the smaller animals, such as swine and poultry; and fourth, in the control and eradication of the cattle tick, hog cholera, tuberculosis, and other animal diseases and pests."

The suggestion regarding the taking up in a systematic manner the production of the beef animals in regular farming areas and likewise the giving of increased attention to the smaller domestic animals, such as sheep, swine and poultry, applies directly to conditions existing in Kansas. With the assurance of good prices for live stock products, the farms of Kansas could make great increases in the production of meat. Steps are being taken in that direction and many farmers are equipping themselves with the necessary cows and making arrangements for utilizing to the best advantage possible the rough feeds of the farm.

In the recent annual report on Kansas crops put out by Secretary J. C. Mohler of the State Board of Agriculture, he comments as follows on the kafir crops of the state: "It is interesting to note that kafir has again made a better average return per acre than corn, amounting to \$15.70, while that of corn is \$11.20, thus kafir continues to give a good account of itself. The same may also be said of the other sorghums and returns suggest that these crops might well take a more prominent place in the agricultural affairs of Kansas."

In this statement by Secretary Mohler the way is pointed out for the greatest increase in live stock production that could be brought about in our state. Kafir and the other sorghums have made this good showing in acre returns largely because of their recognition and use as feed crops. Wherever they have been used in the feeding of farm animals they have been converted into meat and other live stock products with good round profits to the producer. As yet the matter of utilizing these crops to the fullest extent in this direction has hardly been more than suggested. Through the enlarging of our silo capacity throughout the state, the equipping of farms with breeding stock and the more general adoption of the sorghums as the chief feed crop instead of relying on corn, would make Kansas one of the great meat-producing states of the nation.

There are no wider possibilities opening up to the young farmer at the present time than those lying in the direction of seriously taking up the matter of live stock production and depending largely upon the sorghums for feeds. Even the hog need not be neglected in

this capacity, and the hog has generally been recognized as one of the most profitable farm animals grown. Hogs have always made money where they have been given a reasonable chance, and by paying careful attention to the production of the grain sorghums the necessary grain feed can always be grown.

We noticed recently in an interview given by E. C. Pile, a stock farmer of Seward County, as he was marketing two carloads of cattle in Kansas City, that there were twenty carloads of milo on the train on which he came in. He stated that all through his section kafir had been yielding forty bushels to the acre of grain and some of his neighbors had raised as much as fifty bushels of kafir. Where such yields of grain can be produced, the hog can be made a most profitable farm animal, and to the poor man or other men of small capital the hog especially commends itself because of the small investment required in breeding stock and the rapidity with which they reproduce. The hog need not be confined, by any means, to what is commonly called the corn belt.

Feeding the Pregnant Sow.

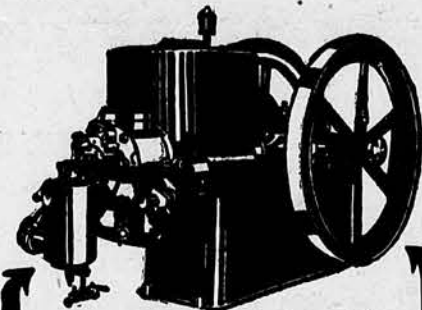
One of our readers in Riley County writes to ask whether it is advisable to use tankage in the ration of the sow due to farrow in the spring. Probably more breeders and farmers make mistakes in the handling of brood sows than in any other phase of the hog business. The first important consideration is the proper selection of the sow which is to bring the pigs for the next year's feeding. The feeding of these sows through the pregnancy period is oftentimes responsible for bad results. It is absolutely essential that they be fed a balanced ration. The development of the unborn young requires plenty of bone and muscle-making material. This must be applied in the form of protein and necessary bone-making material in the feed given to the sow during this period.

Corn is deficient in both of these elements and this grain alone is most unsatisfactory. Wherever alfalfa is raised an ideal brood sow ration will be found in a combination of alfalfa and corn. Plenty of good alfalfa hay available at all times with about one pound of corn per hundred weight of sow is as cheap and efficient a ration as can be desired. With a ration of this kind, tankage or other high protein concentrate is not necessary, unless in the case of the immature gilt still making growth. The gilt can hardly handle a sufficient amount of alfalfa to meet her own requirements for growth and those of the developing pigs. It is not usually desirable to feed mature brood sows and gilts in the same pens for this reason. If this practice is followed it results in a failure of the gilts to grow out as they should, and if continued in for any length of time the size of the breeding stock is sure to be reduced and the animals made less vigorous.

Where the alfalfa is not available, the corn ration must be supplemented with some protein supplement. One part of tankage to fifteen of corn is a good proportion for a brood sow, or one part of oil meal to eight or nine parts of corn. These rations are very concentrated, and it is always desirable to supply bulk in some way. Oats may be made a part of the ration where they are available, substituting them for part of the corn. Bran may be used where oats are not available.

There is another most important consideration in handling a brood sow during this period, and that is the need of exercise. It is usually almost necessary to compel sufficient exercise, at least during the cold winter weather. Scattering the shelled corn fed, or the oats over a considerable area keeps the sows on their feet and thus enforces exercise. Feeding them a considerable distance from their sleeping quarters is another means of encouraging sufficient exercise.

When the snow is on the ground is a good time to spread straw. The straw will help to hold the snow and thereby increase the chance for the crop. It is oftentimes more convenient to spread straw when the ground is covered with snow than at other times. The straw spreader is the implement to use.



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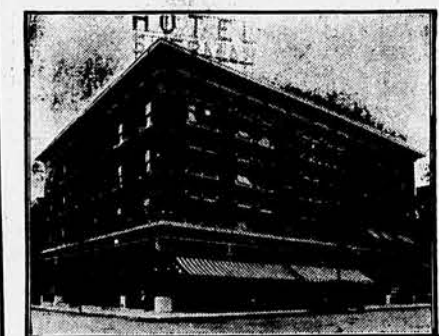
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Delicious Sour Cream Pie.

Mix together one cupful of sour cream, one cupful of sugar, half a cupful of chopped seeded raisins, one heaping tablespoonful of flour or cornstarch, the well-beaten yolks of two eggs, a little grated nutmeg, one-fourth of a teaspoonful of ground cloves and half a teaspoonful of ground cinnamon. Blend thoroughly and bake in an under crust. Make a meringue of the stuffy whipped whites of the eggs mixed with two tablespoonfuls of powdered sugar, spread this over the pie and brown delicately in a moderate oven. Buttermilk may be

used instead of the sour cream if one teaspoonful of butter is added.

Peanut-Butter Candy.

This is such a simple recipe that it is just the thing for children to use. Blend together two cupfuls of sugar, half a cupful of milk and two tablespoonfuls of peanut butter. Boil for five minutes; remove from the fire and beat steadily until cool. Pour onto buttered plates and mark into squares.

Caramel Rice Pudding.

This will be found a delicious, nutritious dessert and one that is very easily digested. Beat until light the yolks of two eggs and add a tiny pinch of salt, one and a third cupfuls of milk, two cupfuls of cooked rice, one cupful of very dark brown sugar and half a teaspoonful of vanilla extract. Mix well, turn into a greased pudding mold and bake about thirty minutes in a moderate oven. This pudding may be served either hot or cold and is delicious if accompanied by a whipped cream sauce.

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



No. 6972—Ladies' Dress: This stylish gown has a separate guimpe to which the sleeves are attached. The outer tunic is a "chemise" form, straight from shoulder to hem and forming a panel in the center front, where the closing is placed. There is a three-gore foundation skirt and to this the lower skirt section is attached. The pattern, No. 6972, is cut in sizes 34 to 42 inches bust measure. No. 6974—Ladies' Waist: A new idea is shown in this charming waist in the back, which is in cape form, although this part may be omitted and the plain underback used alone. The front is plain, with center closing and open neck with high turnover collar in the back. The pattern, No. 6974, is cut in sizes 34 to 44 inches bust measure. No. 6991—Ladies' House Dress: This is essentially a serviceable frock. It has a side front closing with ornamental tab arrangement. There is a tuck at each shoulder in front, but the back is plain. The skirt has seven gores with reversed plait in the center of the back. The pattern, No. 6991, is cut in sizes 34 to 44 inches bust measure. No. 6970—Girls' Dress: A handy slip-on frock is here shown made with the neck cut out in front and back and with small box plaits extending the full length of front and back. This frock has no opening except at the neck and is slipped on over the head. With it is worn a one-piece guimpe, fastening in front. The pattern, No. 6970, is cut in sizes 6, 8, 10 and 12 years. No. 6969—Ladies' Skirt: Made with the waistline a trifle raised, this skirt has a deep yoke, closed in front and to this the box-plaited lower portion is attached. This skirt may serve as a walking skirt, just as shown, or it may be shortened and used as a tunic. The pattern, No. 6969, is cut in sizes 22 to 32 inches waist measure. No. 6967—Girls' Dress: This smart little frock is admirable for combinations of material as suggested. The blouse is a separate garment, with very deep armholes, front closing and wide collar at the neck. The tunic section overhangs the skirt, which is separate, plaited all around with plain front panel. The pattern, No. 6967, is cut in sizes 6 to 14 years.

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WANTED—TO HEAR FROM OWNER OF good farm or unimproved land for sale. C. C. Buckingham, Houston, Texas.

1,280 ACRES TEXAS PANHANDLE, near railroad; best grade of land for general farming and stock raising; \$7.50 per acre. Henry Sayles, Jr., Abilene, Texas.

FREE LISTS OF NESS COUNTY GRAIN, stock and alfalfa land. Fine land at \$10 to \$15 per acre. Easy terms. West, Ransom, Kan.

FOR SALE OR EXCHANGE FOR KANSAS or Missouri farm, fifteen-acre tract in orchard, improved, 1/4 mile from city limits of Roswell. W. W. King, Roswell, N. Mex.

FOUND—HOMESTEAD NEAR FT. MORGAN. 320 acres rich farm land, not sand. Price, \$200, filling fees and all. J. A. Tracy, Fort Morgan, Colo.

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

NICE LEVEL 320-ACRE HOMESTEADS in Oregon. Best of soil, water and climate; soil eight feet deep, no stone. Send \$1 for map and literature to locator. Frank Merrill, Ontario, Oregon.

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

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

FOR SALE—STOCK FARM, 760 ACRES, 7 miles from Woodston, Rocks County; 180 acres creek bottom, 230 acres in cultivation, 50 acres alfalfa, two sets good improvements. Price for quick sale, \$27.50 an acre. Good terms. Cedar Bluff Stock Farm, Woodston, Kan.

WANT TO SELL MY PROPERTY IN Conway Springs; 2 1/2 acres, 6-room house, good barn, chicken house, some fruit and shade trees; all fenced with 4-foot woven wire; only 2 1/2 blocks from high school. Would be an ideal place for chicken ranch. Bargain, terms. J. E. Jackson, Detroit, Kan.

FOR SALE AT A SACRIFICE BY THE owners, two improved farms in most favored section of rich and rapidly developing state, Northeast Arkansas. Very productive, no crop failures. Also 280 acres unimproved land. Business changes necessitate sale. Easy terms. Write T. J. Ellis, Jonesboro, Ark., for further particulars.

CATTLE.

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

FOR SALE—ONE REGISTERED HOLSTEIN bull nine months old. J. A. Forth, Overbrook, Kan.

FOR SALE—OUR REGISTERED HOLSTEIN herd bull and two young bulls. P. Haverly, Hollenberg, Kan.

FOR SALE—THIRTY-FIVE HEAD OF one, two and three-year-old fawn colored Jersey heifers, also a few cows. Also two one-year-old registered Jersey bulls. A nice lot. R. F. Hodgins, Silver Lake, Kan.

SITUATION WANTED.

WANTED—WORK ON WELL EQUIPPED live stock farm, either salary or on shares. Can give good references. Roll R. Passmore, Urbana, Mo.

WANT A JOB ON FARM AS MANAGER or will rent a fully equipped farm on shares or will buy on shares. J. W. Boles, Frederickburg, Iowa.

TREES, SEEDS AND PLANTS.

WRITE J. E. WARRICK, HASTINGS, Neb., for tetterita seed.

SUDAN GRASS SEED, GUARANTEED free from Johnson grass, 50 cents per pound. Walter Jenkins, Pond Creek, Okla.

SUDAN GRASS SEED.—NORTHERN grown Sudan grass seed for sale. Write for prices. Fred Leidigh, Box 25, Hutchinson, Kan.

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WHEELBARROWS, FARMER'S PRIDE. King of all barrows. Hand made, freight prepaid. Send for circular. N. H. Parkinson & Sons, Kent, Ill.

BUY YOUR LUMBER, DOORS, WINDOWS, shingles, etc., direct from mill, saving 25 per cent. Payment after examination, your town. Powell Land & Lumber Co., Rusk, Texas.

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FARMERS, DO YOU NEED MONEY? We negotiate for farm loans, five years at 6 per cent and ten years at 5 per cent, dealing direct with borrower; 2 1/2 per cent straight commission. Correspondence solicited. Security Farm Loan Assn., 20 E. Jackson Blvd., Chicago, Ill.

FREE FOR SIX MONTHS—MY SPECIAL offer to introduce my magazine, "Investing for Profit." It is worth \$10 a copy to anyone who has been getting poorer while the rich, richer. It demonstrates the real earning power of money, and shows how anyone, no matter how poor, can acquire riches. Investing for Profit is the only progressive financial journal published. It shows how \$100 grows to \$2,200. Write now and I'll send it six months free. H. L. Barber, 481-28 W. Jackson Blvd., Chicago.

DOGS.

COLLIE PUPPIES. U. A. GORE, Seward, Kan.

SCOTCH COLLIES FOR SALE. A. W. Toews, Inman, Kan.

ONE RUSSIAN WOLF HOUND AND registered greyhounds for sale. Chas. Branson, Waverly, Neb.

THOROUGHBRED WHITE RUSSIAN wolfhounds, old and pups, \$5 to \$25. J. R. Cox, Plainville, Kan.

FOX TERRIERS, ALL AGES, BEST RAT, pet or watch dogs. T. H. Kaldenberg, Pella, Iowa.

HONEY.

HONEY—FANCY LIGHT AMBER, \$10.00 per two 60-pound cans; amber, \$9.00 per two 60-pound cans. Single cans, 25 cents extra. Bert W. Hopper, Rocky Ford, Colo.

PURE HONEY DIRECT FROM BEE farm to you cheaper than sugar. Sixty-pound can, \$5.00; case of two cans, \$9.00. Special price on larger lots. All f. o. b. Hotchkiss, Colo. Sample free, but send 10 cents to cover mailing charges. Frank H. Drexel, Crawford, Colo.

PATENTS.

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

THE STRAY LIST

E. F. JESSEE, COUNTY CLERK, NEMAHA County. Taken Up—By George Payne, on the 22nd day of November, 1914, one red heifer, yearling, red, notch in left ear. Appraised value, \$30.

IRA WHIPPLE, COUNTY CLERK, Greenwood County. Taken Up—By C. E. Hammond, on the 21st day of November, 1914, one steer, 950 pounds weight, red with white face. Appraised value \$75. Crop off right ear, notch in left ear.

GEO. H. HUNGERFORD, COUNTY Clerk, Riley County. Taken Up—On the 11th day of November, 1914, by Walter J. Wood, Manhattan, Kan., 1026 Kearney St., one female hog, dark red, tip of one ear froze off, ring in nose, weight about 225 pounds. Appraised value, \$14.50.

HORSES AND MULES

SHETLAND PONIES—CHARLES CLEMmons, Coffeyville, Kan.

YOUNG JACK, EXTRA GOOD, TO EXCHANGE for young stock. W. J. Strong, Moran, Kan.

SHETLAND PONIES SUITABLE FOR Christmas presents. C. H. Clark, Leocompton, Kan.

NINE PERCHERON MARES COMING two years old; three mules, one young jack. Priced to sell. F. U. Dulton, Penasola, Kan.

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If your poultry house is not warm enough to prevent the combs of your hens from being frosted, it is not warm enough for them for laying purposes.

Breeders of fancy poultry as a rule do not care to have their hens lay many eggs in winter, for they know if they do so they will not have many eggs in the hatching season; the hens will have laid themselves out. But those who raise poultry for commercial purposes want eggs in winter time, and want them badly, for them it is that they get the best prices. But no eggs can be expected in a cold house, especially if it is cold enough to freeze the combs of the fowls.

The State Fair Association of Topeka has just finished paying all premiums won at the fair last fall. They succeeded in putting on the best stock show ever held in the state, but owing to bad weather fair week the attendance was not as large as expected and therefore reduced the receipts. Otherwise the premiums would have been paid long before now. But the money came in good season—just in time for the Christmas holidays.

The Kansas State Poultry Federation held its second annual show at the Auditorium, Topeka, December 7 to 12. It was a fine show of about 1,500 birds of extra good quality. The displays of White Wyandottes, Buff Cochins, White Leghorns, Barred Plymouth Rocks, Silver Wyandottes, Buff Orpingtons, White Orpingtons, Rhode Island Reds and Buff Plymouth Rocks were exceptionally fine, and such an aggregation of superior birds is rarely seen in one show. At this writing we have not seen the list of awards and therefore cannot name the winners. The weather during the week was miserable and in consequence the attendance at the show was very small. We understand, however, that financially the show will come out all right.

Some very interesting facts can be gleaned from the report of the National Laying Contest, just completed at Mountain Grove, Mo. The ten highest pens and the number of eggs laid by each were as follows: Single Comb White Leghorns, 2,296 eggs; White Wyandottes, 2,047; White Wyandottes, 2,006; Single Comb Reds, 1,996; Barred Plymouth Rocks, 1,867; Single Comb White Leghorns, 1,821; Barred Plymouth Rocks, 1,809; White Plymouth Rocks, 1,784; Silver Wyandottes, 1,764; White Plymouth Rocks, 1,752. Both of the highest pens were from England and owned by the same man. The hens in this contest averaged 159 eggs. There were several hens that did not lay an egg during the entire year. The average of all White Wyandottes was 190 eggs per hen for the year. Barred Plymouth Rocks averaged 176; Single Comb White Leghorns, 172; White Plymouth Rocks, 171; Single Comb Rhode Island Reds, 171; Buff Orpingtons, 163; Anconas, 162; Black Minorcas, 160, and Campines, 139. One hundred and fifteen hens laid over 200 eggs each; the highest of all, a Single Comb White Leghorn, 286 eggs.

The poultry shows are now in full swing, and many will be the men and women that will be stricken with "chicken fever." This is not a fever to be afraid of, nor ashamed of, but one devoutly to be wished; for it is a desire to perform something useful and profitable. All persons who go into the poultry business should have some well defined ideas as to what they want. One may desire to supply his home table with meat and eggs; another to supply meat and eggs for the general market, and still another may like to go into the business just for the love of having fancy poultry. Now it may be possible to secure all these ends in one combination, but it is not always done, and it is better to have one definite object in view and follow that persistently. If you are planning to supply your family with meat and eggs, get some breed that lays well and at the same time will dress a suitable weight for eating. The American class of fowls can be relied upon to furnish all that is necessary in this line. If you aim to go into the business for commercial purposes, then the enterprise becomes one of great importance and you must take lots of time to study the

breeds as well as the markets that you intend to cater to. If you intend to go into the work with the view of raising a few choice birds for exhibition and for love of the fancy, then your own tastes and inclinations are to be considered before anything else. This is a worthy purpose and will prove a constant pleasure and recreation. It is to be supposed, however, that the person attempting to do this has other business which provides for his family needs. To make such a start some money must be invested in good stock. The class of stock purchased must necessarily be high grade, for anything else would defeat the purpose of your work. In fact, the very best obtainable stock should be purchased. With such a start you would be in a position to breed good birds. Then as you make selection of your stock for the show room, you will be reasonably sure that they would stand as good a chance as the rest of the birds in competition. Quality counts, however, no matter along what line you work. Get the best stock you can, for the purpose for which you want it. By doing this you will obtain the desired and hoped for results. But don't expect to make much money for a considerable time, if you take up this latter part of poultry work, for the fancy poultryman must devote lots of time and lots of money to the cause before he gets any returns. But the pleasure and recreation a man may get out of the business ought to count for considerable, especially if it proves a means of taking his mind and cares away from a too-engrossing business for a period. A business man at times needs something to take his mind away from business worries and nothing will do this like taking care of some fancy poultry for a few months.

Big Poultry Meeting.

What is expected to be the largest poultry meeting ever held in the state of Kansas will occur at the Kansas State Agricultural College, December 30-31 and January 1. It will be a field meeting of the Kansas State Poultry Federation at which experts in judging, feeding, breeding and the general care of poultry will give the benefit of their experience and study. This information will be given out in the form of short, snappy lectures. There will be a poultry show and free judging school in connection with the field meeting. Liberal cash premiums have been provided for all standard varieties of chickens, and the special cash premiums of \$5, \$10 and \$15 on several varieties give promise of attracting a splendid display of birds which will be used in the free judging school. Judging from the inquiries, the classes of dressed poultry and eggs will attract considerable attention. It will be possible for someone to win \$25 on five dozen eggs and \$15 on the best dressed carcass in the show. Competition is open to everybody in the state. For further information and premium list, address the Poultry Department, Manhattan, Kan.

Lessons Learned from Contest.

All previous records have been broken in the national egg-laying contest which closed December 1 at the Missouri State Poultry Experiment Station, Mountain Grove. Lady Laymore, hen No. 611, a Single Comb White Leghorn from Nebraska, tied the world's trapnest record for an egg-laying contest. She laid 286 eggs in twelve months. She beat Lady Showyou's record by five eggs. The English pen of S. C. White Leghorns won the grand championship by laying 2,297 eggs. Every one of the pens in this pen except one laid over 200 eggs.

Why is it that some pens have a single hen in the pen of ten hens that will make a very high record and the remaining birds in the pen will be below the average? We think it is due to the fact that a poultryman like Barron has given much thought and much time to the question of selection and breeding for egg production. Such breeders have done some trapnesting, some pedigreeing, and they know the kind of males and females that they are breeding from. Such poultrymen have selected and bred from 200-egg males; that is, males bred from hens with 200-egg records, so long that they have fixed the egg-laying characteristics and the egg-laying ability in the entire flock so nearly so that practically all their hens average well and make good

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LEGHORNS.

TIP TOP R. C. BROWN LEGHORNS AND OTHERS. Write your wants. J. E. Wright, Route 2, Box 5, Wilmore, Kan.

SINGLE COMB BROWN LEGHORNS. Fifty full-blood cockerels from my best pens, both matings. W. J. Roof, Maize, Kan.

850 SINGLE COMB BROWN LEGHORN hens, pullets and cockerels, 75c to \$2 each. Address E. D. Dooley, Selma, Iowa.

SINGLE COMB BROWN LEGHORNS. Fifty full-blood cockerels from my best pens, either mating. W. J. Roof, Maize, Kan.

THE BEST SINGLE COMB WHITE LEGHORN cockerels we ever raised, \$1.50, \$2 and \$5 each. Dave Baker, Conway Springs, Kan.

SINGLE COMB BUFF LEGHORN COCKERELS, \$1 to \$3. Mrs. Frank Wempe, Frankfort, Kan.

S. C. BROWN LEGHORN COCKERELS, extra quality, six for \$5. Mrs. L. H. Hastings, Thayer, Kan.

FOR SALE—CHOICE R. C. B. LEGHORN, R. C. R. I. Red cockerels, at \$1 each or six for \$5. Mrs. John M. Lewis, Route 3, Box 18, Larned, Kan.

SINGLE COMB WHITE LEGHORN cockerels, White Runner drakes, priced right, satisfaction guaranteed. A. L. Buchanan, Route 3, Lincoln, Kan.

SINGLE COMB WHITE LEGHORNS—Egg-type cockerels, \$3, \$5, \$7.50; grand exhibition males, \$10 up. Free catalog and sales list. W. H. Sanders, Box E275, Edgewater, Colo.

FAMOUS PEARL STRAIN SINGLE COMB White Leghorns.—To make room I am offering one hundred pullets and hens at \$1 apiece; cockerels \$1.50, bred from trap-nested stock. Cockerel free with each dozen females. Order direct. Money's worth. R. W. Bradshaw, Ellsworth, Kan.

RHODE ISLAND REDS.

ROSE COMB RED COCKERELS, \$2.50 each. Satisfaction guaranteed. John Carlisle, Vera, Okla.

LARGE DARK VELVET R. C. RED cockerels, \$1 to \$5. Bourbon Red turkeys. Charles Sigle, Lucas, Kan.

RHODE ISLAND WHITE—COCKERELS for sale. Prices reasonable. A. N. Peterson, Waterville, Kan.

FIFTY SINGLE COMB RED COCKERELS, the kind that win. C. E. Florence, El Dorado, Kan.

SELECT ROSE COMB RHODE ISLAND Red cockerels, \$2 each. Julia Baxter, Blair, Neb.

SINGLE COMB RED COCKERELS—Early egg producers. Type, size and color. \$1.50 to \$5.00. Mrs. C. P. Zimmerman, Pleasant Hill, Mo.

WALKER'S STANDARD STRAIN S. C. REDS. Why raise mongrels? Get our prices on fine thoroughbred stuff. Walker's Poultry Co., Chillicothe, Mo.

FOR SALE—SINGLE COMB RHODE Island Reds. A nice bunch of early-hatched cockerels and pullets, also cocks and hens. The best blood, priced right. Moore & Moore, 1239 Larimer Ave., Wichita, Kan.

LARGE R. C. RED COCKERELS THAT are red, from \$2 to \$4. Satisfaction guaranteed. Weigh from 5 to 8 pounds. No culls. Also a few show birds at \$5 apiece. E. H. Hartenberger, Route 4, Box 1, Newton, Kan.

ROSE AND SINGLE COMB RHODE Island Reds. Big bones, dark velvety red, trap-nested and bred to lay. Sell cockerels cheap, hatched from eggs costing \$20 per setting. Eggs in season at low price. Ava Poultry Yards, Ava, Mo.

ORPINGTONS.

KELLERSTRASS ORPINGTON COCKERELS, \$1.25. Ira Frantz, Skidmore, Mo.

SEVENTY-FIVE WHITE ORPINGTONS, also White Langshans, Buff Rock cockerels. Mrs. Wm. Mumpower, Chillicothe, Mo.

MY BUFF ORPINGTONS GROW FASTER and lay more than others. Big cockerels reasonable. L. S. Weller, Salina, Kan.

WHITE ORPINGTON COCKERELS FROM trap-nested stock, \$1.50, \$2. Mrs. Geo. Coble, Cleveland, Mo.

NICE LARGE WHITE ORPINGTON hens, one and two years old. During December, in lots of three to five, \$2 each. W. G. Langehumig, Jackson, Mo.

BUFF ORPINGTON COCKERELS—Twenty-five good ones at a dollar each for quick sale. Twenty-five cents extra where one only is ordered. Mrs. Lillie Underwood, Oskaloosa, Kan.

LANGSHANS.

BLACK LANGSHANS—PRIZE WINNERS scoring 94 to 96. Mrs. D. A. Swank, Blue Mound, Kan.

BIG BLACK LANGSHANS, BRED exclusively for ten years. Cockerels, \$1.75. Annie Pearce, Kildare, Okla.

BRAHMAS.

LIGHT BRAHMAS, BETTER THAN ever. A fine lot of cockerels for sale. M. & J. W. Schreiber, Sibley, Iowa.

COCHINS.

BUFF COCHINS—I HAVE A FEW surplus birds for sale, both old and young, and will sell them much cheaper now than in the spring. Quality the best. My Cochins were never beaten in the show room. J. C. Baughman, Topeka, Kan.

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

PLYMOUTH ROCKS.

BUFF ROCK COCKERELS FOR SALE. Mrs. C. H. Barclay, Webber, Kan.

BUFF ROCK COCKERELS, \$3 TO \$5 each. Ferris & Ferris, Effingham, Kan.

BARRED ROCK COCKERELS—CHOICE birds. Florence Belle Ziller, Hiawatha, Kan.

EXTRA GOOD WHITE AND BARRED Rocks. Sidney Schmidt, Chillicothe, Mo.

BUFF ROCKS, PRIZE WINNERS, FOR sale by C. S. Hart & Sons, Milan, Mo.

CHOICE BUFF ROCK COCKERELS, \$1.50 to \$3.00 each. Mrs. Homer Davis, Walton, Kan.

PURE BARRED ROCK COCKERELS—Fine large early-hatched farm raised. Price, \$1.50 each. Mrs. H. Buchanan, Abilene, Kan.

BARRED ROCK COCKERELS ONE DOL-lar each, two weeks only. E. C. Carter, Bunker Hill, Kan.

WHITE ROCKS, SIZE AND QUALITY. Healthy, vigorous birds. Satisfaction guaranteed. Write G. M. Kretz, Clifton, Kan.

WAGNER'S BARRED ROCK COCKER-els, \$1 to \$5 each. Mrs. E. C. Wagner, Holton, Kan.

WHITE ROCK COCKERELS AND PUL-lets, extra large; Fishel strain, \$1.50 each. Mrs. F. S. Manning, Friend, Neb.

CHOICE BUFF ROCKS—COCKERELS and pullets. Extra fine stock. Mrs. William Small, Wilson, Kan.

BUFF ROCKS CHEAP TO MAKE ROOM. Satisfaction guaranteed. Freeman Alden, Ellsworth, Kan.

PURE BARRED ROCKS EXCLUSIVELY. Heavy laying strain. Cockerels, \$1.50 each. W. C. Shaffer, Route 6, Burlington, Kan.

FOR SALE—BUFF ROCKS, PRIZE winners; choice birds at \$2 each. Mrs. John Ainsworth, Lexington, Mo.

WHITE ROCK COCKS AND COCKERELS for sale, \$1.50 and up. Nellie McDowell, Garnett, Kan.

ONE HUNDRED WHITE ROCK COCK-erels and pullets, early and late hatched, from prize winning stock. W. T. Blackwill, Quinter, Kan.

SIXTY BUFF AND WHITE PLYMOUTH Rock cockerels of extra merit for breeding or showing, priced at \$1.50 to \$5 each. A. E. Glass, Harrisonville, Mo.

BUFF ROCK COCKERELS AND PUL-lets, the large growing prize winning kind. Reasonable prices. Geo. Scherman, Olathe, Kan.

IVORY STRAIN WHITE PLYMOUTH Rocks. Large cockerels from my state fair winners, \$1.50 to \$10. Minnie C. Clark, Haven, Kan.

BARRED ROCK ROOSTERS AT \$2.00 each. Extra large, evenly marked and fine colors. Eggs in season, \$1 for sixteen. Mrs. A. E. Irvine, Jetmore, Kan.

BARRED ROCK COCKERELS, PULLE-t-bred; grand breeding birds; dams score 93; have record 250 eggs in twelve months; won many prizes, largest shows. Shipped on approval. Ike Hudnall, Milan, Mo.

WYANDOTTES

CHOICE WHITE WYANDOTTE COCK-erels, \$1 to \$2 each. Mrs. Will Beightel, Holton, Kan.

GOOD HEALTHY COCKERELS AND PUL-lets not related, in Silver Wyandottes. H. L. Brunner, Route 5, Newton, Kan.

PRIZE-WINNING SILVER WYANDOTTE cockerels. Satisfaction guaranteed. H. Claiborn, St. Edward, Neb.

PARTRIDGE WYANDOTTES—GREAT winning at state fair, five firsts, three seconds, four thirds. Correspondence solicited. E. P. Cressler, Peabody, Kan.

SILVER WYANDOTTES EXCLUSIVELY—Farm raised, Tarbox strain, from prize winning stock. Choice cockerels, \$1.50, \$2, \$2.50, \$3. Mrs. Edwin Shuff, Plevna, Kan.

WHITE WYANDOTTES—MAMMOTH Pekin and Buff Orpington ducks, America's finest stock. Mrs. A. J. Higgins, Route 1, Effingham, Kan.

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WHITE WYANDOTTE COCKERELS AND pullets, large pure white classy ones, bred from the richest blood lines in America, at one-half their actual value. Exhibition birds a matter of correspondence. N. Kornhaus, Peabody, Kan.

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FISHEL WHITE RUNNERS, FIVE DOL-lars trio. Circular. Wm. S. Jordan, Hastings, Neb.

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INDIAN RUNNERS, FAWN HEAD AND tail. Ducks, \$1.50; drakes, \$1.25. Mammoth Bronze toms, \$5; hens, \$3. Mrs. E. M. Jones, Granger, Mo.

FOR SALE—SEVERAL WHITE RUNNER drakes, from Mrs. Myers' prize-winning stock, winners of all first premiums at State Poultry Show. Price, \$2.00 each. Thomas Owen, Jr., Route 7, Topeka, Kan.

PEN TEN MAMMOTH WHITE PEKIN ducks, one drake, \$10. Large thoroughbred White Holland tom, \$5. Rose and Single Comb R. I. R. cockerels, \$1. E. Stewart, Box 52, Henderson, Iowa.

POULTRY SUPPLIES

BECKER'S AUTOMATIC BROODER makes chicken raising sure. Does everything the hen can but scratch and cluck. Costs nothing to operate. Write for particulars. Agents wanted. Powell Land & Lumbar Co., Rusk, Texas.

records, barring sickness, accident, or improper methods of feeding and housing. While the other fellows have bred more or less promiscuously and unknowingly. Therefore they only get an occasional high hen. A good fancier might see an exceptionally beautiful bird exhibited by an amateur, but not knowing whether the bird had a line of good breeding back of him, a good fancier would not give much for such a bird to cross on his flock because the bird's good points might not be fixed by years of breeding, and he might not be able to transmit his good qualities. The same is true in breeding for egg production. In some pens practically every bird gives evidence of years of careful selection and breeding, and another pen has only an occasional good bird, which shows that these good qualities are not so firmly and uniformly fixed in the flock. Mr. Poultryman, know the history and the pedigree of at least a few of your best breeding males. It pays.

In addition to the above facts, our records of this contest and the two previous ones lead us to state the following as being true:

There is an egg type and a beef type in poultry, just as there is a dairy type and a beef type in cattle. We find both of these types in all varieties of poultry. And there is also the intermediate, or dual-purpose type. We are not going to attempt to describe these except to say that our best hens are medium-sized birds, and as a rule are considerably under standard weight. They are late moulters and practically free from the disposition to broodiness. They have thin pelvic bones, rather high tails, rather narrow skulls, not a masculine head in appearance; large, bright eyes; large combs; long and broad backs carried much higher than that portion nearest the tail; wide behind with plenty of space between the point of their breast bone and the points of the pelvic bones; and they must be good feeders, always active and alert. The good laying hens are nearly always somewhat close feathered; not loosely feathered like the Cochins. We believe that if a White Leghorn with a record of 250 eggs and a Barred Rock with the same record, were both in good health and condition, and were both killed and picked at the same time, you would find a great resemblance and uniformity in the shape and measurements of the body and bones of the two fowls. You would have to make due allowance for the extra size of the Plymouth Rock, of course.

These contests have also proven that a reasonable amount of beauty and a reasonable amount of eggs can be combined in the same fowl. The Barred Rock, the White Rock, the Buff Leghorn and a number of the other hens which made the highest records this year, were hens which would not disgrace any show room. The Barred Rock which laid 254 eggs was exceptionally good in color and shape. Just as have some of the fanciers utterly disregarded egg production in their matings, just so have some of the egg men utterly disregarded color in their matings. We do not believe it is possible to produce a record-breaking layer and pay too much attention to color, neither can you breed the exceptionally high-scoring specimen and pay too much attention to egg production, but we do believe it is possible to breed whole flocks that can average 150 to 180 eggs and have individuals laying from 200 to 250 eggs and still have beautiful color and shape, which is not necessarily standard shape. There seemed to be a disposition at the last A. P. A. meeting at Chicago to gradually change the shape of our varieties until they conform more nearly to the egg type, and that is what we should come to. Also the egg men should strive to improve the color of their flocks, and the standard makers should always bear in mind not to make the color requirements so artificially impossible that a good poultryman could not combine a reasonable amount of beauty in shape and color, and at the same time have a productive flock. We are glad to say that the disposition of the standard makers seems to be in that direction more than ever before.—Missouri Experiment Station Bulletin.

In loading a wagon, place the load evenly over the front and hind wheels. If any difference is made it should be on the hind wheels. They are larger and hence do not sink in as deep as the smaller front wheels. The fact that the load is farther from the team does not increase the draft on the wagon. When the team is hitched to something dragging on the ground, then the nearer the team is to the load the lighter the pull. This is due to the fact that the nearer the team is the more the pull will be upward, thus helping to reduce the friction between the load and the ground.

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Both are made of both Galv. and Wood. For Incubator is covered with asbestos and galvanized iron; has triple walls, copper tank, pump, egg tester, thermometer, ready to use. **\$10**
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White Plymouth Rocks

Again prove their superiority as egg layers in the National Egg-Laying Contest. One White Rock hen laying 281 eggs; 445 hens competing. I have bred White Rocks exclusively for 20 years and have them as good as anybody. Eggs from three high-scoring pens, \$2.00 per 15; \$5.00 per 45, delivered free by parcel post or express. Safe delivery guaranteed. A limited number of eggs from a specially fine mated pen, \$5.00 per 15. You will get what you order, or money refunded.

THOMAS OWEN,
Station B. Topeka, Kansas.

PURE BRED POULTRY

TURKEYS

TWO MAMMOTH BRONZE TOMS, \$5 each. Lawrence Tiff, Haddam, Kan.

WHITE HOLLAND TURKEYS—TOMS \$3, hens \$2. Mrs. Ed. Dorr, Mahaska, Kan.

WHITE HOLLAND TURKEYS, FAWN White Runners. Zella Stewart, Holts, Kan.

BOURBON RED TURKEYS FOR SALE, none better, by C. S. Hart & Sons, Milan, Mo.

TWENTY-POUND WHITE HOLLAND turkeys—Toms, \$5. Jessie Crites, Florence, Kan.

PURE MAMMOTH WHITE HOLLAND turkeys from prize winning stock. S. A. Warren, Reger, Mo.

NARRAGANSETT TURKEYS—BREEDING stock unrelated. Sarver's Poultry Farm, Mt. Moriah, Mo.

FOR SALE—BRONZE TOMS FROM 40-pound tom, \$4.50 each. Fishel White Rock cockerels, \$1.25. W. L. Bell, Funk, Neb.

PURE-BRED M. B. TURKEYS—LARGE bone, vigorous and healthy. Also Indian Runner drakes. Sadie Litton, Peabody, Kan.

WHITE HOLLAND TOMS, \$4; WHITE Indian Runners, \$2 each, trio \$5. Mrs. E. E. Dillehay, Agenda, Kan.

BOURBON RED TURKEYS, EARLY-hatched, large bone, good color. Toms, \$4; hens, \$3. A. M. Farmer, Pratt, Kan.

OAK HILL FARM—HOME OF THE PURE-bred M. B. Turkeys. High scoring stock a specialty. Route 3, Lawson, Mo.

BOURBON RED TURKEYS, PURE-bred; heavy-boned lusty young toms, nicely marked. Also few good hens. Maple Heights Farm, Route 5, Box 20, Marysville, Kan.

BOURBON RED TURKEYS—BIG, DARK red and correctly marked. Show winners for years. Toms, \$4.50; hens, \$3.50 each. Mrs. Clyde Meyers, Fredonia, Kan.

THOROUGH-BRED BOURBON TURKEYS—Choice early birds. Also Buff Rock cockerels. Prices reasonable. Mrs. Amos Andsley, Miami, Mo.

FOR SALE—HIGH-GRADE BOURBON Red Turkeys; hens and toms. Also high-grade Rhode Island Red cockerels and pullets. Write for full particulars. Mrs. Pearl Kern, Springfield, Ind.

BRONZE TURKEY TOMS—FIRST SIX letters received containing five and a half dollars gets a ten dollar turkey. Hurry. Late orders returned. Jesse McMahon, Blackwater, Mo.

300 CHAMPION BRONZE TURKEYS, sired by sons of my 52-pound champion tom. Large size, fine white edging. Have pleased customers in 25 states. Shipped on approval. Ike Hodnall, Milan, Mo.

BLUE RIBBON GIANT BOURBON RED Turkeys, toms \$5, hens \$3. Old tom weighs forty pounds. Single Comb White Leghorn cockerels, Frantz Yesterlaid strain, \$1 and \$2. Flora Smith, Amorita, Okla.

SEVERAL BREEDS.

ORPINGTONS—PRICE LIST FREE. Single Comb Buff Orpingtons, Toulouse Geese, Indian Runner Ducks. Peter Brehm, Harvard, Neb.

TURKEYS, GEESE, DUCKS, GUINEAS, chickens. Leading breeds. Good stock. Reasonable prices. Emma Ahlstedt, Roxbury, Kan.

PURE-BRED COCKERELS, S. C. WHITE and Brown Leghorns, Red Caps, Silver Spangled Hamburgs and Partridge Wyandottes, \$1 each. Thomas Ohlsen, Whiting, Kan.

ANCONAS.

ANCONA COCKERELS FOR SALE, 75 cents each. John Smutny, Irving, Kan.

ANDALUSIANS.

BLUE ANDALUSIAN COCKERELS, \$1.00 to \$2.00 each. J. J. Getz, Atlanta, Kan.

DUROC JERSEYS

TATARRAX HERD
DUROCS

Two hundred spring gilts, in lots to suit customer, from one to a carload. Also choice boars. Entire spring crop immunized. Pigs by Tatarax, G. M.'s Tat Col. and Kansas Col. by Cherry Col. and Tippy Col. Come and see our herd.

COL. WONDER HEADS MY
COL. WONDER DUROCS

Col. Wonder, his daughter, Sire, Grand sire and Great Grand sire were Grand Champion winners at Iowa, Nebraska and Missouri State Fairs. No other boar can boast of as many champions backing him. When you buy from my herd you get the best blood. The best lot of boars I ever raised. Special prices to move them. Write or come.

CHAS. L. TAYLOR, R. R. 1, Olean, Mo.

Durocs of Size and Quality

Immunized boars, bred gilts, from large prolific stock. B. & C's Col., Superba, Defender, Perfect Col., Good E Nuff Again King and Ohio Chief blood lines. Description guaranteed.

CHOICE SPRING BOARS

Prices low—\$15 and \$25. Quality high. Sired by Enoch's Choice, dams by Chief Model.

IMMUNE DUROC JERSEYS

Twenty-five head immune boars of April farrow. Best of breeding. Good length and plenty of bone. Write for prices.

Legal Tender Immune Durocs

Boars, 75 to over 200 pounds; fall yearlings, spring gilts bred. All immune. Sales made in seven states. Write your wants.

BON ACORD DUROCS

BRED SOW SALE JANUARY 22, 1915. Fall yearlings and spring gilts. Write for catalog. Only a few spring boars left, but they are good ones.

GOOD ENUFF AGAIN KING

The Grand Champion of Kansas, 1913. Crimmon Wonder 4th, a second prize boar. We have a number of herd boars for sale reasonably.

FANCY DUROC BOARS AND GILTS.

Fall boars by Smith's Graduate Col. out of best sows. Choice lot of gilts by J. R.'s Col. bred for June litters to Gold Medal. Priced for quick sale. J. R. SMITH, Newton, Kansas.

GOOD DUROC JERSEY BOARS.

Twenty-two fall and spring boars by Country Gentleman 132541, Golden Model 4th 161011, and other good boars. Good individuals. Best breeding, immunized and priced right. Call or write today.

HILLCREST FARM DUROCS

A lot of boars ready for service. Price, \$20 and \$25. First order gets choice. All immunized.

AUCTIONEERS.

C. E. Robbins Live Stock and Farm

Made sales last year in Missouri, Iowa, Kansas, Oklahoma, Illinois, aggregating over \$700,000 worth of live stock. Write for sale date.

LAFE BURGER

LIVE STOCK AND REAL ESTATE AUCTIONEER

FRANK J. ZAUN

Fine Stock Auctioneer. Independence, Mo. "Get Zaun. He Knows How." Bell Phone 675 Ind.

C. F. Beard Live Stock Auctioneer.

Makes sales anywhere. Prices reasonable. Parsons, Kansas.

R. L. HARRIMAN

Live Stock Auctioneer. Write for dates, terms, etc. Address, Buncheon, Missouri.

J. A. MORINE, GENERAL AUCTIONEER.

Pure-bred Live Stock a Specialty. Box 155. Lindsborg, Kansas.

Col. Jesse Howell Live Stock Auctioneer.

Write or wire for terms. Herkimer, Kansas.

W. C. CURPHEY

Pure-Bred Stock and Big Farm Sales. Salina, Kansas.

Frazier's Polands Please.

E. D. Frazier, of Drexel, Mo., has been able to please the most discriminating customer in his mail order shipments of Poland China breeding stock. He still has a few choice spring boars and to close them out quickly is offering them at bargain prices. He has a fine lot of fall pigs by his great breeding boars, Frazier's A Wonder and Expansion Hadley. Mr. Frazier lost this famous son of A Wonder last summer, but not until he had a lot of big, prolific sows bred to him for fall litters. He is offering a hundred big growthy tops from the fall pigs and, considering the quality and size of these pigs, his prices cannot be beaten. He can supply pairs and trios not related at \$30 for pair and \$50 for trio. Mr. Frazier will put up at public sale on February 10, 1915, one of the best offerings of big tried brood sows that will be made this season. He solicits correspondence and will furnish the most complete particulars regarding the stock he offers. Write him, mentioning Kansas Farmer.

FIELD NOTES

G. C. WHEELER
Manager Live Stock Department.

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

PURE BRED STOCK SALES.

Percheron Horses.
Jan. 13—Improved Stock Breeders' Consignment sale of Registered Percherons, Fair Grounds, Topeka, Kan. H. W. McAfee, Manager.

Jan. 28—Spohr & Spohr, Wichita, Kan.

Combination Live Stock Sale.
Feb. 25—Miami County Breeders' Association.

Percherons and Other Draft Horses.
Jan. 26, 27, 28, 29—C. W. Hurt, Arrow-smith, Ill.

Jacks and Jennets.
March 8, 1915—G. C. Roan, La Plata, Mo.

Angus Cattle.
Jan. 21, 1915—Consignment sale, Manhattan, Kan. L. R. Brady, Manager.

Sherthorns.
Jan. 15, 1915—Consignment sale, Manhattan, Kan. L. R. Brady, Manager.

Poland Chinas.
Jan. 21—J. R. Cline, Iola, Kan.

Jan. 20—Roy Johnston, South Mound, Kan.

Feb. 9—I. E. Knox, South Haven, Kan.

Feb. 10—Agricultural College, Manhattan, Kan.

Feb. 10—E. D. Frazier, Drexel, Mo.

Feb. 10—Ira L. Kyle, Mankato, Kan.

Feb. 11—John Kemmerer, Mankato, Kan.

Feb. 12—J. D. Mahan, Whiting, Kan.

Feb. 13—W. A. Baker & Son, Butler, Mo.

Spotted Polands.
Feb. 10—H. L. Faulkner, Jamesport, Mo.

Durocs.
Jan. 22—Louis Koenig, Solomon, Kan.

Jan. 23—N. B. Price, Mankato, Kan.

Feb. 8, 1915—J. A. Porterfield, Jamesport, Mo.

Feb. 9—Agricultural College, Manhattan, Kan.

Feb. 12—Howell Bros., Herkimer, Kan.

Feb. 13—Buskirk & Newton, Newton, Kan.

Feb. 23—J. R. Jackson, Kanapolls, Kan.

March 11—W. W. Otey & Sons, Winfield, Kan.

March 12—G. C. Norman, Winfield, Kan.

O. I. C. Hogs.
Jan. 20—William Bartlett, Pierce, Neb.

C. E. Bean, of Garnett, Kan., is offering a high-class lot of Holsteins, including yearlings and two-year-old heifers and aged cows, none over eight years old. His offering of registered Holsteins is a good one and Holstein breeders and dairymen who are on the market for good Holsteins should get in touch with Mr. Bean at once, as he is making prices that will sell his offering in a hurry. Write him for descriptions and prices, mentioning Kansas Farmer.

Don't overlook Clyde Girod's Holstein-Friesian farm at Towanda, Kan., if you are on the market for Holsteins. Mr. Girod always has stock for sale, either registered or high grade. He is now offering stock of all ages, from calves up, either sex. Look up his card in Kansas Farmer and write him for prices and descriptions.

Attention is called to the change in the card of Joseph B. Beyer, of Clay Center, Kan. Mr. Beyer offers a six-months-old Shorthorn bull and a yearling Polled Durham bull. Both of these bulls are good ones. He also has a number of younger ones for sale, and a few cows and heifers. He recently sold a very fine Polled Durham bull to Henry Kohrs, a prominent breeder of Dillon, Kan., and five choice Shorthorn cows to Doctor McCulloch. It will pay to get his prices before buying.

G. Regier & Son, of Whitewater, Kan., are offering a number of very high class registered Holstein cows that are fresh. They also have a choice lot of bred heifers and some young bulls ready for service. The head of their herd is a grandson of the world's record cow from 1904 to 1907, Aggie Cornucopia Pauline, 34.32 pounds butter in seven days. This offering will interest breeders wanting high-class Holsteins at reasonable prices. Look up their card and write for prices.

J. C. Robison Has Good Sale.
The twentieth annual sale of imported and American-bred Percheron stallions and mares held by J. C. Robison, of Towanda, Kan., December 17, was very satisfactory. The eighteen stallions sold averaged \$655 per head and twenty-four mares averaged \$440 per head. The total of the sale for forty-two head was \$22,375, an average of \$532. The top of the sale was a three-year-old son of Champion, which was bought by John Strother, of Alva, Okla., for \$1,450. Kapitol, the champion mare of the 1914 state fairs, went to W. S. Bowles & Son, of Enid, Okla., at \$800.

Hineman Offers Jacks by Champion.
The firm of Hineman & Son, of Dighton, Kan., has established an enviable reputation in the jack and jennet business. On their ranch in Lane County are found ideal conditions for growing and developing jacks and jennets of the size and quality now demanded. The best of foundation stock has been secured and with the careful thought put into the proper mating of this stock, jacks and jennets from this ranch always give satisfaction. They own the champion Pharaoh, which jack has never been defeated in the show ring. Some young jacks by this famous sire are now offered. They possess the size and quality which have made Pharaoh famous. Those wanting to secure a high-class jack should by all means correspond with this firm. Kindly mention Kansas Farmer when writing.

Good Proposition for Poland Breeders.
The proposition offered by J. R. Whightsell, of Sandy Creek Farm, Wheeler, Ill., will interest anyone wanting big-type Polands of the best and most fashionable breeding. The herd boars in use in this herd are from the herds of John Miller, M. P. Hancher and Henry Door, three of the noted big-type herds. These boars are high in quality and they are all in the 1,000-pound class. His herd of big-type sows carries the blood of the Mouw and Miller herds. They are a select lot of big easy-feeding prolific sows and as a herd are second to none in the country. Breeding stock from this herd is fed and developed in a way that practically insures that they will make good breeders. Mr. Whightsell guarantees that every animal shipped will be exactly as represented or no sale. Breeders wanting herd

JERSEY CATTLE

JERSEY CATTLE.

JONES' JERSEYS WIN

Splendid young cows safe in calf. Backed by records; every cow in herd on test. Chief bull in service, Financial Countess Lad. Second herd bull, son of Magnate's Interest. Dams of our three herd bulls average 861 pounds butter in one year. Some of these young cows in calf to such bulls will start you right. Also have a few young bulls at attractive prices.

Our chief herd bull is one of the great bulls of the breed, bringing \$2,500 at 90 days of age and \$5,000 as a two-year-old; was grand champion at Waterloo, Iowa, in 1912. His dam, Financial Countess, was 1908 butter champion with record of 13,248 pounds milk and 935 pounds 10 ounces butter. Magnate's Interest's 12-year-old record was 14,885 pounds milk and 875 pounds butter. Our motto is "Constitution first, production second, beauty third." Write us your wants.

WESTVIEW JERSEY FARM, J. E. JONES
Nowata, Okla.

SUNSET JERSEYS

The \$5,000.00 Blue Belle's Golden Rose-boy, 85230, heads the herd. His sons and daughters, all ages, for sale. Beauty and production—Jerseys that please. Write your wants. Send for circular giving description of herd, production, breeding, etc.

NEW LELAND JERSEYS

Young bulls bred for utility and beauty. Priced to sell.

NEW LELAND FARM, Storden, Minn.

BUTTER-BRED JERSEYS

Springing heifers, granddaughters of Noble of Oaklands, and his half brother. All registered. A dozen young bulls. Part time to reliable parties. Write your wants or come.

BREEDERS' DIRECTORY

The following classified list contains the names of many of the reliable breeders of pure-bred live stock. They will gladly answer your inquiries. Your name should be in the list. If interested, write LIVE STOCK DEPARTMENT, KANSAS FARMER, for further information.

ANGUS CATTLE.

Bert McIlvaine, Lebanon, Mo.

AYRSHIRE CATTLE.

Loveland Farm Co., Omaha, Neb.

HEREFORD CATTLE.

H. V. Baldeck, Wellington, Kan.

HOLSTEIN CATTLE.

T. M. Ewing, Independence, Kan.

JERSEY CATTLE.

W. F. Holcomb, Clay Center, Neb.

POLLED DURHAM CATTLE.

J. H. Walker, Lathrop, Mo.

BERKSHIRE HOGS.

N. H. Gentry, Sedalia, Mo.

MULE FOOT HOGS

Bred Mule Foot Hogs. Solid blacks, \$50. Bred to Cherry Sultan by Old Cherry King. A few choice June pigs, \$20, three for \$50.

SULTAN STOCK FARM.

Route 7. Bloomington, Indiana.

Banbury's Champion Polands.

The attention of Poland China breeders is called to the card of J. C. Banbury & Sons, of Pratt, Kan. This firm owns the famous Banbury pure-bred stock farm noted for its fine herds of Polled Durham cattle and Poland Chinas hogs and its fine flocks of Rose Comb Rhode Island Red, Partridge Rock and White Wyandotte chickens. No stronger advocates of pure-bred stock for the farm can be found in Kansas than the members of this firm, and their herds and flocks carry the best blood lines of their respective breeds. Their offering at this time will interest Poland China breeders. Their herd is made up of representatives tracing to world's champions. Look up their card and write them, mentioning Kansas Farmer.

Garrison Sale Later.

Mr. Garrison writes us that the principal reason for postponing his sale, which was advertised to be held at Sumnerfield, Kan., December 17, was that the cattle were not getting into proper condition as rapidly as he had hoped, and he felt that all would be better pleased to come at a later date when the offering would show to better advantage. The cattle will all be sold, so the catalogs sent out should be preserved by those interested. In about six weeks from the date originally set Mr. Garrison expects to hold this sale. The exact date will be given as soon as it can be decided upon. Meanwhile anyone interested in good useful Shorthorn cattle should write Mr. Garrison for a copy of the catalog and watch for the date of the sale. Kindly mention Kansas Farmer when writing.

When writing to advertisers, please mention Kansas Farmer.

A FEW CHOICE SONS AND DAUGHTERS OF FINANCIAL COUNTESS LAD

and other noted bulls; young cows will milk FORTY TO SIXTY POUNDS per day, out of richly bred large producing dams. Priced reasonably. Must reduce herd.

W. N. BANKS, Independence, Kansas.

LINSKOTT JERSEYS—PREMIER REGISTER OF MERIT HERD.

Established 1878. Bulls of Register of Merit, imported prize winning stock. Also cows and heifers.

TWO JANUARY BULL CALVES.

Out of high producing dams; Flying Fox and Golden Fern's Lad breeding; for sale at very low prices.

REGISTERED JERSEYS.

Butter-bred bull calves from heavy producing cows, priced right.

MAXWELL JERSEY DAIRY, Topeka, Kan.

SHORTHORN CATTLE

Good News, grandson of Choice Goods. Can use him no longer. This bull is a great bargain.

SHORTHORN HERD BULL

Also three young bulls one to two years old. Prices reasonable. Come and see me.

JOHN REGIER, WHITEWATER, KANS.

HIGH-CLASS SHORTHORNS

Five bulls, 10 to 13 months old; five young cows close to calving; five young heifers. These cattle are all of good quality, in good condition, and are a clean, healthy, useful lot of cattle. Priced to sell quick.

C. H. WHITE, BURLINGTON, KANSAS.

CEDAR LAWN SHORTHORNS

They are going fast. Only four yearling bulls left, also four calves. Four of them pure Scotch. Can spare three good yearling heifers. Prices reasonable.

S. B. AMCOATS, CLAY CENTER, KAN.

SHORTHORN BULLS

Two real herd bulls—one red, one white. Cumberland's Last, a Cruickshank Victoria, and Prince Valentine 4th by Gallant Knight. Also some bull calves at weaning.

DR. W. C. HARKEY, LENEXA, KAN.

SHORTHORN SHOW BULL

Roan Major, a five-year-old, low set, wide and smooth and full of quality. Price, \$250. Young bulls, \$100 to \$125.

JEWELL BROS., HUMBOLDT, KANSAS.

Shorthorn Bulls & Heifers

Brawith Heir, a Brawith Bud by Gallant Knight's Heir, heads herd. Choice young stock priced to sell. Inspection and correspondence invited.

E. E. YEACOCK & SON, Hartford, Kansas.

CEDARWYLD POLLED DURHAMS AND SHORTHORNS.

One six-months-old Shorthorn bull, one yearling Polled Durham bull. Both good ones. Some younger ones and good cows and heifers. Priced right.

JOSEPH BAXTER, Clay Center, Kansas.

When writing to advertisers, please mention Kansas Farmer.

HORSES AND MULES

BRILLIANT blood, jet blacks, rich greys. Registered Percheron studs, 1, 2, 3 and 4 years old. I grow great big fellows with big bone and heavy quarters—I love a good horse. Visit my Percheron farm. I have the goods, and lots of them. Don't let anyone tell you they have Percherons like Fred Chandler's. Just above Kansas City.
FRED CHANDLER, ROUTE 7, CHARITON, IOWA.

SHETLAND PONIES
HERD BEING DISPERSED

Thirty head, not a cull in the lot, all ages, sizes and colors, mostly mares. Our farm is sold and ponies must go by February 1. For fifteen years we have bred ponies. Write your wants.
J. C. THOMPSON, JAMAICA, IOWA.

FAIRVIEW STOCK FARM

Registered Jacks bred to meet modern requirements for bone and stamina. Twenty-five head from weanlings to 7 years old and up to 1,200 pounds in weight. Good jennets bred to the champion Pharaoh 2491. We won the 1913 and 1914 Hutchinson championships.
H. T. HINEMAN & SONS, DIGHTON, KAN.

JACKS AND JENNETS

For quick sale, fifteen large mature Jacks, all large bone, good colors, 14½ to 16 hands standard, guaranteed and priced to sell. I have a large herd of jennets and will price a few reasonably. Come and see me if you mean business.
PHIL WALKER, Moline, Elk County, Kan.

FIFTY JACKS FIFTY

Large black mammoth Jacks, 15 to 16 hands standard. Guaranteed and priced to sell. Also good young Percheron stallions. Reference any bank in Lawrence. Forty miles west of Kansas City, on Santa Fe and Union Pacific Railroads.
AL. E. SMITH, LAWRENCE, KANSAS.

A. Latimer Wilson, Creston, Iowa. Home-bred draft stallions \$250 to \$650. Imported stallions cheaper than anywhere else. Come and see.

HOLSTEIN CATTLE

26 Head - Registered Holstein Cows - 26 Head

All have A. R. O. records; A. R. O. dams or grand-dams. Two years old and up. Nearly all fresh in next three months. All bred to grandson of Pontiac Korndyke. Will sell one to fifteen of these, buyer to have the pick of the herd, \$150 to \$600. Four-year-old herd bull for sale cheap, a grandson of Pontiac Korndyke; gentle, sound, sure-breeder, seven-eighths white. Have thirty of his daughters to breed and must change bulls. All these will be given an A. R. O. test when they freshen. On bull will consider a trade for span of young draft mares or registered Holstein heifers or heifer calves. Also have three young bulls five and six months, nothing older, A. R. O. dams or granddams.
B. W. COOKE & SON, MAYSVILLE, DEKALB COUNTY, MISSOURI.

Purebred Registered
HOLSTEIN
CATTLE

With thirty common cows, each giving 3,000 pounds of milk per year, introduce a pure-bred registered Holstein bull. In two years, you'll be milking grade Holsteins yielding 4,000 to 5,000 pounds. In five years, you'll have 6,000-pound cows and will need to keep only fifteen cows to get the same amount of milk. In ten years, you'll have 8,000 to 9,000-pound cows and a ten-cow herd will produce as much milk as your thirty cows do now. Quite a saving in labor, feed, and equipment, to say nothing of the increased value of your cows and calves. Send for FREE Illustrated Descriptive Booklets.
The Holstein-Friesian Ass'n of America, Box 114, Brattleboro, Vt.

SATISFACTION GUARANTEED

HIGH-CLASS REGISTERED POLANDS. Some show prospects, \$15 and up. Weight, 100 to 600 pounds. Blood of state and national winners. Visitors met at depot.
RANBURY'S HORNLESS SHORTHORN AND POLAND CHINA FARM
Route 1, Phone 1602. Pratt, Kansas.

M. E. MOORE & CO.

CAMERON, MISSOURI.
BULL CALVES FROM A. R. O. COWS. Sired by Sir Kornryke Imperial 53683. Calves suitable for heading registered herds.

Butter Bred Holsteins

For Sale—Cows and heifers; heavy springers. Prices very reasonable. Write today. These bargains will not last long.
J. P. MAST, SCRANTON, KAN.

Golden Belt Holstein Herd

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

Choice HOLSTEIN Cows

Well-bred cows, two-year-old heifers and 25 choice heifer calves, all good colors. Prices reasonable.
GEO. F. DERBY, Lawrence, Kansas.

HOLSTEIN FRIESIAN FARM

ALWAYS HAS HOLSTEINS FOR SALE. From calves up. Registered or high grade. Write your wants.
CLYDE GIROD, TOWANDA, KANSAS.

Holstein-Friesian Bulls. — Very attractive prices for next four weeks on a two-year-old herd bull and several other registered bull calves that are younger, one a son of a 90-pound cow, his granddam a 101-pound cow.
Higginbotham Bros., Roseville, Kansas.

HOME FARM HOLSTEINS.

Nicely bred bulls, serviceable age. Write for pedigrees and prices, stating age and breeding wanted.
W. B. BARNEY & SONS, CHAPIN, IOWA.

CHOICE YOUNG HOLSTEIN BULLS. Backed by Records. Priced to Sell.
JOHN KENSINK, Boyden, Iowa.

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

HORSES AND MULES.



LAMER

I have just received a new shipment of twenty stallions, and now offer
80 -- HEAD -- 80

STALLIONS - MARES
FILLIES and COLTS

Write for prices.

C. W. LAMER

Salina

Kansas

BUY FROM THE BREEDERS

Registered Percheron stallions and mares, also standard-bred stallions and mares. Thirty-five head to select from. Prices reasonable.
E. P. HAMILTON & SONS, Garden Grove, Iowa.

REGISTERED PERCHERONS

Choice stallions, one to four years old, blacks; also a few choice mares, to sell cheap. J. T. SCHWALM, Baldwin, Kansas.

BANNER STOCK FARM

Twenty-five registered Percherons. Colts by the champion Inoleus. Mares bred to him. Jacks and jennets, all ages.
BRUCE SAUNDERS, HOLTON, KAN.

HOLSTEIN CATTLE.

HOLSTEIN HERD BULLS
MY GREAT HERD BULL

Sir Woodcrest Mechthilde Lad 71539, fine breeder, gentle disposition, calves have been 75 per cent heifers, cannot use him longer. Also choice bull calf sired by this bull, dam Lady Abbecker Mechthilde 161139, produced 15 pounds butter fat on grass without grain. Priced to sell.
J. N. GEORGE, HOPKINS, MO.

The DELLS STOCK FARM

Holstein Cows—Sixty-three head to select from; yearlings, two-year-olds and cows, none over eight years. Write or come and see them.
C. E. BEAN, GARNETT, KANSAS.

CHENANGO VALLEY HOLSTEINS.

For quick sale, 100 head high-grade nicely marked cows and heifers, due to freshen in September and October; also fifty fancy marked yearlings, all tuberculin tested. Prices reasonable.
F. J. Howard, Bouckville, Madison Co., N. Y.

EDGEWOOD HOLSTEINS—Ten heifers 4 to 6 wks. old, 15-16ths pure, \$20 each crated for shipment. One registered yearling bull, \$100. Edgewood Farm, Whitewater, Wis.

FRESH HOLSTEIN COWS—Bred heifers, young bulls. Herd bull grandson world's record cow 1904-7, 34.32 lbs. butter 7 days.
G. REGIER & SONS, WHITEWATER, KAN.

RED POLLED CATTLE

COBURN HERD RED POLLED CATTLE AND PERCHERON HORSES

Twelve extra good young bulls. Some extra fine young stallions, among them first prize and champion of Topeka Fair. Also young cows and heifers.
GROENMILLER & SON, Pomona, Kansas.

RED POLLED CATTLE

For Sale—A choice lot of cows, bulls and heifers, all registered, with good quality.
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Anyone wanting a Holstein herd bull that is good enough to head any herd should get in touch with J. N. George, of Hopkins, Mo. He is offering his great herd bull, Sir Woodcrest Mechthilde Lad 71539, for sale. This bull is bred right. He is a fine individual, one of the best breeders now in service, of gentle disposition, and 75 per cent of his calves have been heifers. He is only four years old and, as Mr. George cannot use him longer he will be sold worth the money. He is also offering a choice bull calf sired by this bull and out of Lady Abbecker Mechthilde 161139 with a record of fifteen pounds butter fat on grass without special care. This calf is a fine individual and was first and champion at the Nodaway County Fair in a strong show. The granddam of his new herd header recently purchased has a seven-day record of 35.38 pounds, and his twenty-six nearest dams have records of 32 pounds or better. Write at once for prices and descriptions. Please mention Kansas Farmer.

Heacock & Son's Shorthorns.

Shorthorn breeders should investigate the offering of E. E. Heacock & Son, of Hartford, Kan. They are offering a nice lot of young bulls and heifers that have been bred and developed to make good. For years they have systematically selected breeding stock with one purpose in view, and that was to build up a herd of Shorthorn cows of the ideal type that can always be depended upon as a paying proposition. As a result of years of careful selection they now have a choice herd of over forty head of young Marys, Rose of Sharons, Rubys, Red Roses, White Roses, Britannias, Victorias and Potomacs, all regular breeders and profit producers. The young bulls now offered for sale are a uniformly good lot. Among them is a twenty-months-old bull that has been used in the herd. He is one of the low-down beefy kind, good back, good lines, well sprung rib, good head and horn, and has proved a sure breeder. Also a fine sixteen-months-old calf of larger type, five bulls ranging in age from eight to twelve months, five bull calves and a number of good heifers. Write for prices and descriptions, mentioning Kansas Farmer.

"WAS A SURE GETTER"

Blackwater, Mo., Dec. 13, 1914.
Kansas Farmer, Topeka, Kan.

Sirs—Enclosed find check for \$4.40, amount due for my ad for turkeys. It was sure a "getter." Orders poured in and I have added about 100 satisfied customers to my list, and booked some egg orders. Respectfully,
MRS. JESSE T. McMAHON.

When writing advertisers, please mention Kansas Farmer.

Double Standard Polled Durham Cattle.

We wish to call our readers' attention to the ad of C. J. Woods, of Chiles, Kan., one of the oldest breeders of Double Standard Polled Durham cattle in the West. Mr. Woods has spent all his life with this breed, having grown up on a farm at Gardner, Ill., where his father owned one of the good herds of this breed. Mr. Woods has owned a number of valuable sires. Roan Hero, the grand champion, was used for a number of years in the herd, and from him he got a fine string of heifers and also Roan Choice, now used at the head of the herd. Mr. Woods also purchased from the Kansas Agricultural College at Manhattan a fine young bull, Matchless Avon, by Matchless Dale, by the great Avon Dale. Mr. Woods has a number of good bulls for sale, one being a two-year-old road bull by Roan Hero. His dam was a daughter of the show bull, Gallant Knight and heavy second dam was a daughter of Imp, Thistle Top. He offers a few choice cows and heifers. If interested in this breed of cattle you can make no mistake in buying from this herd. Please write or call and see this herd at Chiles, Kansas, and kindly mention Kansas Farmer.

Marsh Creek Durocs.

R. P. Wells, proprietor of the Marsh Creek herd at Formoso, Kan., has decided to sell his bred sows this winter at private treaty. His offering is a good one and he is going to sell them so any farmer wanting good breeding stock can use them. They will be sold less sale expense, Mr. Wells writes, and no man buying will have to bid against another man's judgment. The fall yearlings are all by Buddy O. K., whose sire was Buddy K. 4th by Wide Awake. The gilts are by Crimson Defender, Model Hero, R. & S. Crimson Wonder, and Royal Climax. The offering will be bred to Crimson Defender except the gilts by this sire. These will be bred to Model A by Model Hero, by Golden Model. This young boar is a fancy pig having a finely arched back, full deep ham, deep smooth body, straight legs and the best of feet. Mr. Wells has selected this boar for this cross, feeling that the result is certain to produce some high-class Duroc pigs. The older boar, Crimson Defender, is of the large meaty type with heavy bone, of good length, full and heavy in the ham and with fancy head and ear. Mr. Wells is preparing a circular giving the history of his herd and other important information for those in the market for good Durocs. Write him for this circular and kindly mention Kansas Farmer.

Volume 23, Angus Herd Book.

The information contained in the introductory pages of Volume 23 of the American Aberdeen Angus Herd Book, furnish considerable light on the increased interest being taken throughout the county in well-bred beef cattle. The southern states have taken large numbers of pure-bred Angus cattle. Excluding the states of Iowa, Illinois and Missouri, Mississippi during the past year has purchased more Angus cattle than any other state. Montana has also been a heavy buyer of Angus cattle.

The first forty or fifty pages of this volume contain a great deal of information of value to not only the breeder of Angus cattle, but to anyone interested in the development of the beef cattle industry. The volume contains 12,000 pedigrees. The price to non-members is \$3, members paying \$1. The secretary of the association is Charles Gray, of Chicago, Ill., to whom all orders for the book should be sent.

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PRIVATE SALE TO DISSOLVE PARTNERSHIP. Entire herd, double standard Polled Durhams and Shorthorns. Cows with calves and young heifers. Also double standard herd bull Sir William. Priced to sell. Come or write.
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For Hampshire hogs, Dutch Belted cattle, Arabian stallions, Collie dogs and goose feathers, write C. Welsenbaum, Altamont, Kansas.

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January 21, 1915

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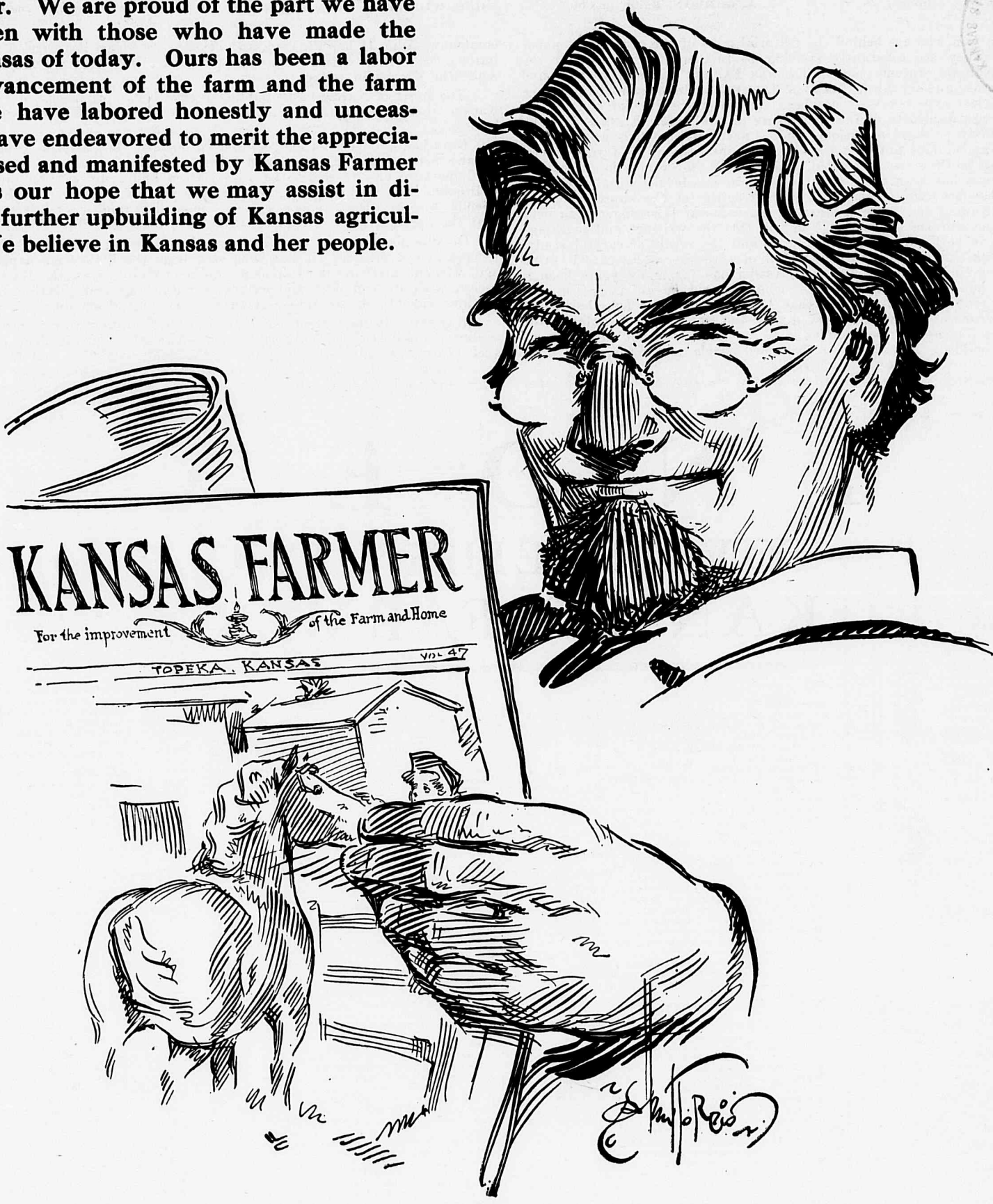
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KANSAS FARMER

For the improvement  of the Farm and Home

INDEX TO VOLUME FIFTY-TWO OF KANSAS FARMER, NINETEEN HUNDRED FOURTEEN

KANSAS FARMER is now in its fifty-third year. We are proud of the part we have taken with those who have made the Kansas of today. Ours has been a labor for the advancement of the farm and the farm home. We have labored honestly and unceasingly and have endeavored to merit the appreciation expressed and manifested by Kansas Farmer folks. It is our hope that we may assist in directing the further upbuilding of Kansas agriculturally. We believe in Kansas and her people.

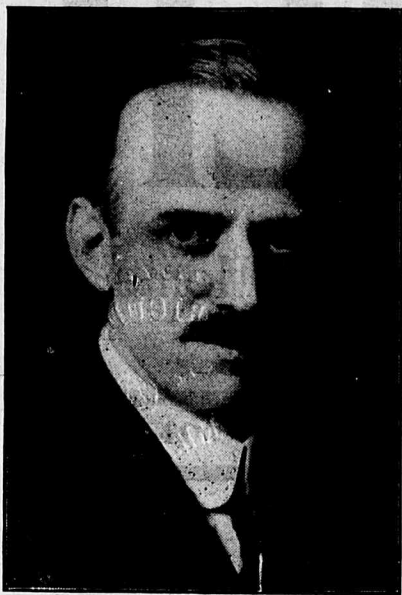


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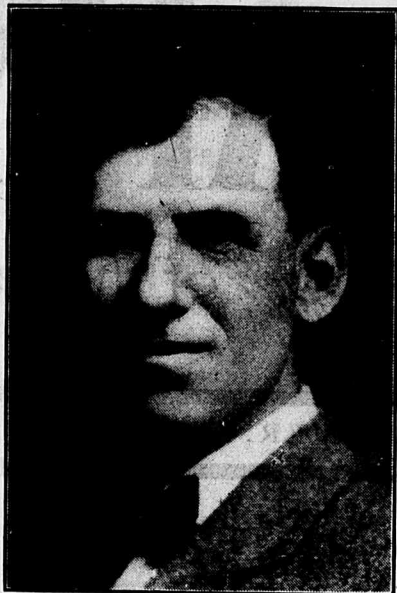
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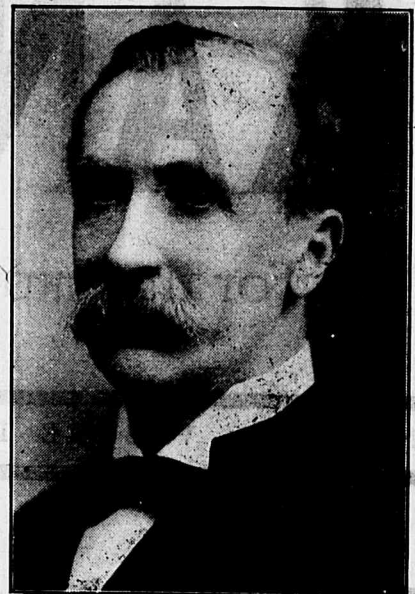
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T. A. BORMAN, Editor in Chief



G. C. WHEELER, Associate Editor



THOMAS OWEN, Poultry Editor

ABOVE are the men who are behind the editorial guns of the great farm paper of Kansas. They are constantly striving to further the interests of the farmers of Kansas. Information in KANSAS FARMER will always be found reliable, accurate and truthful. KANSAS FARMER is edited by real farmers—men of practical experience—men whose sole interests are for the betterment and increased profitability of the agriculture of the state. KANSAS FARMER is not edited to satisfy political ambitions, and it never recommends anything to further its advertising columns unless it is to the best interests of its farm readers.

KANSAS FARMER is fifty-two years old, and in fifty-two years the paper has grown wonderfully and has been a big positive force in the development of Kansas agriculturally. It has been the teacher and guiding spirit for the improvement of the farm homes of Kansas ever since it started, and today it is stronger than ever in business policy and editorial strength. You will find the writings and teachings in KANSAS FARMER to be accurate in every detail and the result of careful study, and not of a "slapstick" kind, catering to the whims of advertisers. KANSAS FARMER has hundreds of long-time readers. KANSAS FARMER has for many years been a welcome visitor in hundreds of farm homes, which should be an assurance and inspiration to new readers. It is certain that the reader cannot help but thrill with pride in the Kansas of today as compared with the Kansas of yesterday. Not another such state as Kansas has been builded in so few years, and not another state like it will ever be builded. No other state has such people as Kansas. The state has been builded as only such a people could make.

KANSAS FARMER has performed its share in the creation of this exceptional

commonwealth. It has directed, and at the same time has carried its share of the burden. KANSAS FARMER is proud of the part it has taken with those who have made the Kansas of today.

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Ours has not been an exaggerated enthusiasm, but a level-headed labor for the advancement of the farm and farm home. Our aim has always been honest, to give good measure and to merit the appreciation and compensation due for the work well done. The weekly issues, in which are printed kind words of loyal readers and friends, and in which appear an ever-increasing number of advertisers, are proof that the appreciation and compensation have been received.

On this platform and on this record KANSAS FARMER has prospered and expects to continue to prosper. It is a long step from the little 6x9 paper of fifty years ago, with no mechanical equipment and no patronage, to the KANSAS FARMER of today, with its complete and extensive publishing and printing plant, and with columns filled with absolutely clean and reliable advertising.

KANSAS FARMER's great plant and excellent organization is maintained for the exclusive publication of only one paper—KANSAS FARMER. The concentration of such effort has only one object—that, the publishing of a real farm paper, which is not only wholesome reading, but which contains information upon which its readers can rely and farm by in the future as well as in the past.

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Skim milk calves for veal	Jan. 31	5	Yeast treatment for barren cow	Oct. 17	12	tain milk flow	Nov. 14	9
Overcoming beef shortage	Jan. 31	5	Influence and effect of regis-	Dec. 5	8	Inquiry concerning feed for Hol-	Nov. 21	10
Beef cattle shrinkage in transit	Feb. 14	7	tered bulls	Dec. 5	8	stein heifers	Nov. 21	10
Optimism in cattle trade	Feb. 14	16	Dairy Boom and Care of Dairy	Jan. 3	12	Apple pulp feed for milk cows	Nov. 28	5
Cattle scarcity—not a theory	Feb. 21	14	Hand separator butter	Jan. 3	12	The value of silage and alfalfa	Nov. 28	10
Roughage in beef production	Feb. 21	18	What is speed of your separa-	Jan. 10	13	Give milk cow plenty of feed	Dec. 5	8
Argentine competition	March 7	3	tor?	Jan. 10	13	Regarding drinking water dur-	Dec. 5	8
Baby beeves make cheap	March 14	4	Making prize farm butter	Feb. 28	12	ing the winter	Dec. 12	9
gains	March 14	4	Importance of cow milking	Feb. 28	12	Milk cow ration	Dec. 12	9
Increasing cattle production	March 14	7	Cost of butter production	March 21	14	Sweet clover not equal to al-	Dec. 19	8
Cattle growers encouraged	March 28	2	Cost of butter production	March 21	14	alfa	Dec. 19	8
Warbles in cattle	April 4	17	To keep cream sweet	April 18	12	Alfalfa hay as roughage	Dec. 19	8
Price of stock cattle vs. finished	April 11	12	Weights of gallon of milk	April 18	12	Cost of silage for twenty-four	Dec. 19	9
cattle	April 18	13	Keep cream separator in good	April 18	12	cows	Dec. 19	9
Dehorning calves	May 2	8	condition	April 18	12	Feed for dairy cattle where sil-	Dec. 19	9
Fewer cattle in Flint Hills	May 2	8	Cause of poor farm butter	June 6	2	age is not available	Dec. 19	9
Beef cattle on general farm	May 23	2	Care of hand separator cream	June 13	8	Proper Proportions of Silage	Dec. 19	9
Summer beef supply short	May 23	2	Refrigerator milk or cream can	June 20	8	and alfalfa	Dec. 19	9
Scarcity of beef cattle in Argen-	May 23	2	Refrigerator milk or cream can	June 20	8	Cottonseed meal for dairy cows	Dec. 26	7
tine	May 23	2	Genuine butter	July 4	2	TUBERCULOSIS AND OTHER DISEASES		
High prices of Herefords	June 13	2	Sour and stringy milk	July 4	2	Illinois will clean dairy herds	Jan. 3	3
Raise feeders at home	June 13	7	Demand for sweet cream and	July 4	8	Garget in heifer	Feb. 14	14
Sucking skim milk calves	June 20	2	milk	July 11	8	Milk testing vs. increased price	March 7	12
Army buys American beef	July 25	10	Wells for cream storage	July 11	8	of milk	March 7	12
Feeding baby beef	Oct. 31	13	Cool milk or cream before stor-	July 11	8	Shipping of tubercular cows	March 7	12
CEMENT			ing	July 11	8	from other states	March 7	12
Repair foundations with con-	July 4	7	Tank may be used for storing	July 11	8	Cow dealers employ lawyer	May 9	3
crete	Aug. 8	11	cream	July 11	8	Pays to stamp out tuberculosis	May 9	3
The hog wallow	Oct. 31	7	Sturges refrigerator can	July 11	8	Cow dealers scored	Aug. 1	3
Concrete instruction costs noth-	Oct. 31	7	The use of sour milk	Aug. 1	8	Paying for condemned cattle	Aug. 15	12
ing	Oct. 31	7	Refrigeration of milk and cream	Aug. 22	4	Law on testing cows for tuber-		
Small concrete buildings	Nov. 14	4	Stir milk during water cooling	Aug. 22	4	culosis	Aug. 29	4
Concrete on the farm	Dec. 26	9	Improve the dairy	Sept. 5	8	Illinois cattle quarantined	Sept. 5	3
Resurfacing concrete sidewalk	Aug. 29	4	Learn milk quality	Sept. 5	8	Test for tuberculosis	Oct. 17	9
CHINCH BUGS			Cause of thin cream	Sept. 5	8	Remedy for lump jaw	Nov. 21	3
About burning the bugs	Jan. 3	4	Proper use of separator	Sept. 5	12	Dairy cattle in danger		
K. S. A. C. bulletin about chinch	Jan. 17	3	A first class separator should	Sept. 5	12	DEY LAND FARMING		
bugs	Jan. 17	3	be used	Sept. 5	12	International Dry Farming Con-	Feb. 21	3
Burn bugs soon as grass gets	Jan. 24	3	Value of the warm skim milk	Sept. 12	3	gress		
dry	Jan. 24	3	To improve cream	Sept. 12	3	Cow foundation of dry farming	March 14	6
Regarding chinch bug stories	Feb. 21	3	Protect the cream while in	Sept. 12	6	success	March 14	6
Farmers destroying chinch	Feb. 21	3	transit	Sept. 12	6	Western Kansas plans	April 25	8
bugs	July 11	6	Dairy house essential	Sept. 12	6	Live stock and dry farming	May 2	4
Chinch bugs checked on kafir	Sept. 26	7	Milk and cream contest	Oct. 17	8	Grows wheat every year	June 20	2
field	Sept. 26	7	The working of butter	Dec. 5	8	Policy for dry farming	Aug. 15	6
Fight chinch bugs	Nov. 14	3	Testing for Production	Jan. 3	13	Building for Kansas county	Aug. 29	4
Destroy chinch bugs by co-	Nov. 21	4	Great Dickinson county herd	Jan. 17	2	International Dry Farming Con-	Aug. 29	3
operation	Nov. 21	4	Red Polled butter fat record	Jan. 17	2	gress at Wichita	Sept. 5	5
Plan chinch bug burning cam-	Dec. 5	5	County Cow Testing Associa-	Jan. 17	12	Kansas hostess for world	Sept. 5	5
paign	Dec. 5	5	tion	Jan. 24	5	International Dry Farming Con-	Sept. 12	5
Burning exposes bugs to	Dec. 5	5	World's champion Ayrshire	Jan. 24	5	gress at Wichita	Sept. 12	5
weather	Dec. 5	5	Advantages of having a cream	Jan. 31	13	Sorghum map of Kansas a fea-	Oct. 17	3
Chinch bugs and worms in	Dec. 5	5	tester	Jan. 31	13	ture of the Dry Farming Ex-	Oct. 17	3
silage	Dec. 5	5	Holstein's record	Feb. 14	12	position	Oct. 24	4
CO-OPERATION			Testing association continued	Feb. 14	12	Big dry farming meeting	Oct. 24	4
Co-operation of farmers	Jan. 10	9	Difference in producing capac-	Feb. 14	13	Cropping methods for west	Oct. 24	4
Farmers' market	Jan. 31	3	ity	Feb. 14	13	Dry Farming Congress aroused	Nov. 7	3
Farmers' Educational Union	Feb. 14	3	Cow testing report	Feb. 21	16	Interest in agricultural books	Nov. 7	3
Co-operative laundry	Feb. 21	25	Cow testing in Wisconsin	March 14	15	About dry farming	Dec. 5	3
The co-operative educational and	March 7	3	Butter fat report	March 21	3	EDITORIAL		
Co-operative Union	March 7	3	Milk cow records	March 21	4	"Peanut Politics"—sure enough	Jan. 17	3
Co-operation in dairy business	March 7	12	Fifty-five dollars profit	March 21	5	The prescription fraud	Jan. 24	3
Co-operation in Smith County	March 14	3	Cows double output	March 21	5	Sale of an Iowa farm	Jan. 24	3
Social center does good to a	March 14	8	Regarding official tests	March 21	5	Number of silos in Chautauqua	Feb. 14	3
community	March 14	8	Dickinson Co. cow testing re-	Mar. 21	11	county	Feb. 14	3
Co-operation of farmers and	July 4	3	port	Mar. 21	11	Regarding farmers writing for	Feb. 21	3
bankers	July 4	3	Regarding Dickinson Co. test-	Mar. 21	5	newspapers	Feb. 21	3
Regarding co-operative laun-	July 4	8	ing records	Mar. 21	16	Work of the Santa Fe regarding	Feb. 21	3
dries	July 4	8	New Holstein records	Mar. 21	16	Russian immigrants	Feb. 21	3
Co-operative marketing	July 18	3	Dickinson County Cow Testing	April 18	13	Chinese eggs vs. American	March 14	3
Co-operative co-operate with	July 18	3	Association	May 2	3	eggs	March 14	3
How a live community eliminat-	July 18	4	New world record cow	May 2	6	The wastes of Kansas	March 14	3
ed denominational problem	July 18	4	Guernsey cow record	May 2	6	The "Commeline Bubble"	March 21	3
Com. Hine	July 25	3	The value of a cow	May 2	11	Regarding agricultural commis-	April 11	3
Co-operative breeding methods	Oct. 3	11	Why testing association is good	May 2	11	sioners	April 18	3
Co-operation in silo building	Oct. 24	5	Survey of dairy herds in Ore.	June 6	8	Loss by fire in Kansas	June 6	3
and filling	Oct. 24	5	Kansas Jersey owners want	June 6	8	Daily newspaper "rot"	June 6	3
Grain elevator opening cost	Nov. 21	7	cows tested	June 13	2	Jury decide in favor of Gov.	June 13	3
Organization methods	Dec. 5	3	Correction of milk record	June 13	9	Hodges in one minute	June 20	3
Community finds itself	Dec. 26	4	Big Holstein producer	June 13	9	Quick work sometimes pays	June 20	3
CORN			"Lucky Farce" exceeds Jersey	June 20	8	Kansas Board of Agriculture	June 20	3
Study corn and sorghums	Jan. 31	3	record	June 20	8	desires pictures of wheat	July 4	3
Corn shrinkage	Jan. 31	3	Regarding Dickinson Co. Test-	June 20	8	Mohler, Secretary	July 4	3
Corn demonstration for 1913	Jan. 31	3	ing Association for May	June 20	9	Orders to shippers, consignees	July 4	3
Suggestions for corn growing	Feb. 14	13	Milk records for May	June 20	9	and railroads	Sept. 12	3
Oil made from corn	Feb. 14	23	Dickinson Co. cow testing re-	June 20	8	Value of fat reducing cure	Sept. 26	3
Ohio seed corn	Feb. 14	23	port	June 20	8	Too many commissions	Sept. 26	3
To protect corn from rats and	Feb. 21	4	Kansas can produce good dairy	July 11	3	The day of prayer	Oct. 3	3
mice	Feb. 21	4	stock	July 11	3	Needs of the Philippines	Nov. 7	3
Need a revival in corn growing	Feb. 21	12	June cow testing report	Aug. 15	10	Taxpayers should take interest	Dec. 26	3
Early maturing seed corn	Feb. 28	3	Butter fat test at Topeka	Aug. 15	10	in government affairs	Dec. 26	3
Scarcity of home-grown seed	Feb. 28	3	Dickinson County Cow Testing	Aug. 15	11	Plea for farm inventory	Dec. 26	3
corn	Feb. 28	3	Association	Aug. 15	11	To all the people of Kansas	Dec. 26	3
What about your seed corn?	Feb. 28	3	Fifty cows produce 117 pounds	Aug. 22	8	ENGINES		
Fraudulent sales of seed corn	Feb. 28	3	butter	Aug. 22	8	Farmers interested in gasoline	Jan. 17	15
Seed corn test plat	March 7	3	May Rima, the Guernsey rec-	Sept. 19	3	engines	Jan. 17	15
Seed corn situation	March 7	3	ord cow	Sept. 19	3	The binder engine	May 30	3
Seed corn for 1914 planting	March 21	3	Dickinson County Cow Testing	Sept. 19	3	Engines for wheat harvest	June 13	7
Early work for corn pays	March 21	3	Association	Sept. 19	3	Engines for gas en-	June 20	9
Imported corn dangerous	March 21	3	Three day butter fat test	Oct. 10	9	gines	Aug. 29	7
Argentina	April 4	3	Report from Illinois condensing	Oct. 17	8	Power for pumping water	Sept. 12	4
When to plant corn	April 11	19	concern	Oct. 17	8	Gasoline engine speed	Nov. 7	7
Depth to plant corn	May 2	5	Guernsey butter fat records	Oct. 17	8	Gasoline engine on farm	Nov. 14	2
Early cultivation of corn	May 23	8	Dickinson County Cow Testing	Nov. 14	9	Need more power on farm	Nov. 28	5
Cultivation of corn Central	June 27	6-7	Association	Nov. 14	9	Cold weather engine starting	Nov. 28	5
Kan.	July 11	5	Result of Cow testing associa-	Dec. 5	8	EXPERIMENT STATIONS		
Rape in corn	July 11	7	tion in California	Dec. 5	8	Fort Hays Experiment Station	Jan. 10	18
Should test seed corn	July 18	3	The basis for computing annual	Dec. 5	8	Experiment station and feeder	Jan. 24	11
Poor seed again	July 18	3	production	Dec. 5	8	Experimental work in corn for	Feb. 21	3
To "lay-by" corn	July 25	7	Holstein-Friesian cow breaks	Dec. 12	9	dry weather	March 7	10
Prospects improved	Aug. 1	1	record	Dec. 12	9	Supt. of Colby sub-station	March 7	10
Corn for winter	Aug. 22	2	Dickinson County Cow Testing	Dec. 19	9	Colby branch station	March 7	10
Corn and oats advance	Aug. 22	2	Association	Dec. 19	9	Beef production experiments	March 14	13
Corn show at Panama-Pacific	Aug. 29	3	DAIRY CATTLE			Business of the experiment sta-	April 11	15
Exposition	Aug. 29	3	Cost of Dairy Cows	Jan. 17	4	tion	April 11	15
Inquiries about Argentine corn	Oct. 17	6	Keep profit making cows	Jan. 17	4	Cattleman's day at Manhattan	April 18	3
Seed room vs. corn crib	Oct. 17	6	Increase in milk cows	Feb. 14	13	Kafir silage wins	April 25	10
Prices forty years ago	Nov. 7	4	Dairy cows and hogs in Texas	Feb. 28	4	Experiment station needs land	April 25	10
Hogging off corn profitable	Nov. 7	6	Money loaned for purchase of	Feb. 28	13	Hays winter tests end	May 1st	4
practice	Nov. 7	6	dairy cows	Feb. 28	13	Beef production at Hays	May 9	4
Fall plowing	Nov. 28	7	High prices of good producing	March 7	12	Indiana Ex. Station demon-	June 27	5
Hogging down corn	Nov. 28	7	dairy animals	March 14	5	strates efficiency of silage	June 27	5
Clean wormy corn with sheller	Dec. 12	7	Dutch belted cattle	March 14	14	Hays meeting affords chance to	July 18	5
Sunflowers vs. a corn crop	Dec. 26	9	Large feeders make best yield	March 21	11	note interesting conditions	July 18	5
COTTON & COTTON SEED MEAL			Butter making not profitable	March 21	11	Experiment station at Colby	Aug. 28	3
Cotton & Cottonseed products	Aug. 22	2	Cows pay farm expenses	March 21	11	"At Home" day at Fort Hays	Aug. 28	3
Cottonseed meal unsafe for	Sept. 19	6	\$35 per cow for six months	March 21	11	Study Hays' methods	Sept. 19	3
hogs	Sept. 19	6	Dairy profit doubtful	March 21	11	Indiana exhibit attracts atten-	Nov. 28	10
Appeal to government to take	Oct. 17	8	Thinks good cows pay	March 21	11	tion	Nov. 28	10
care of cotton crop	Oct. 17	8	Dairy-bred cattle return great	May 30	3	FAIRS, EXPOSITIONS AND SHOWS		
Cotton growing and other	Oct. 31	7	est profits	May 30	3	American Royal Live Stock	Feb. 7	20
Cottonseed as supplement to	Nov. 14	9	More Holsteins to Kansas	June 13	9	Show	March 14	14
corn	Nov. 14	9	Milk and beef producers	June 20	4	Kansas State Fair Ass'n annual	April 4	3
Value of cold pressed cottonseed	Nov. 21	9	Purchases of Wis. Dairy	June 20	8	exhibition	April 4	3
cake	Nov. 21	9	farmers and girls keeping	June 20	8	International Soil Products Ex-	April 18	3
COW PEAS & SOY BEANS			Iowa boys and girls keeping	June 20	8	position	April 18	3
Soy beans for central Kansas	March 7	5	records	June 20	9	Regarding live stock at Panama	May 9	7
Cowpeas as catch crop	May 3	5	Cal does not chew cud	June 20	10	Pacific Exposition	May 9	7
Hogging off cowpeas and fet-	Nov. 14	6	Record breaking price for Hol-	June 20	10	Lady assistant appointed in live	May 9	9
erita	Nov. 14	6	stein	July 4	4	stock dept. at Panama Pacific	May 9	9
CREAMERY			High class cattle come to Kan-	July 4	4	Exposition	May 9	9
Gasoline tainted cream	Jan. 3	12	Effect of hot weather on the	July 4	8	About sheep exhibit at Panama	May 9	9
Creamery business in western	Jan. 3	12	dairy cow	July 4	8	Pacific Exposition	May 9	9
Kansas	Jan. 3	12	Paid \$20,000 for Holstein calf	July 18	8	The Palace of Education at	May 23	3
Grading of cream	March 21	8	Milk cow most profitable for	July 18	8	Panama Pacific Exposition	May 23	3
Tariff and butter outlook	March 21	8	success	July 18	8	Travelers' Aid at Panama Pa-	May 30	3
Buying cream on grade	July 4	8	Use profitable cows only	July 18	8	cific Exposition	June 6	2

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An early colt show	Sept. 19	2	Household labor saving	Jan. 17	3	Fighting animal diseases	Nov. 28	3
International Live Stock Ex-	Sept. 19	3	Scott county farm doling	Jan. 24	16	Quarantine on hay and straw	Nov. 28	5
position at Chicago	Sept. 19	3	Wife well worth while	Jan. 24	7	No fear of eating meat in quar-		
Fair great educator	Sept. 19	5	Cattlemen best farmers	Jan. 24	10	antined states	Dec. 5	3
Dairy show at Wichita	Sept. 19	9	Iowa girl wins prize for road			Sanitation and quarantine es-		
State fairs last week	Sept. 28	4	dragging	Jan. 24	14	ential to control	Dec. 5	4
O. I. C.'s at the Topeka Fair	Sept. 28	11	Skunk has farm value	Jan. 31	11	Former foot-and-mouth epi-		
Public service stallions at Fair	Sept. 28	11	Save on blacksmith's bills	Feb. 14	9	demio	Dec. 5	7
Short-horns at Topeka and			Interest rates may be reduced	Feb. 14	9	Use Disinfectants in fighting		
Hutchinson	Sept. 28	11	Hay making methods	Feb. 14	11	disease	Dec. 19	9
These won the premiums	Oct. 3	6	Iowa Agricultural College			GARDEN AND VEGETABLES.		
Butler Kafir Carnival	Oct. 10	3	studying farm buildings	Feb. 21	3	Potato improves soil produc-		
Achenbach Bros. won at Illi-	Oct. 10	7	Tobacco for Leavenworth Co.	Feb. 21	17	tivity	Jan. 24	7
nols Fair	Oct. 10	7	Hedge balls for fuel	Feb. 21	18	Getting ready for garden	Feb. 14	21
National Dairy Show in October	Oct. 10	8	Seeking a new location	Feb. 28	12	Planting the garden	Feb. 21	8
Kansas Galloways win at Illi-			The farm office	Feb. 28	15	Potato culture in Kansas	Feb. 28	5
nols Fair	Oct. 10	10	Uncle Sam wants better chil-			The farm garden	Feb. 28	7
These won Kansas Farmer pre-			dren	Feb. 28	17	Early garden work	Feb. 28	7
miums	Oct. 17	15	Government reports regarding			Potato culture bulletin	Feb. 28	18
Creamery butter awards	Oct. 17	9	tillable land	March 7	10	Cost of good garden	Feb. 28	18
Kansas delegation at National			Growing interest in agricul-			Vegetable varieties for Kansas	Feb. 28	19
Dairy Show	Oct. 24	8	ture	March 7	10	Farmer should provide for		
Slogan at the Dairy Show in			Some causes for failure in			kitchen garden	Feb. 28	19
Chicago	Oct. 24	8	farming	March 7	10	Orchard and garden notes	March 7	13
American Royal a breeders'			Fault found with rural			Fruit and vegetable garden	March 21	21
show	Oct. 24	12	churches	March 7	10	Village garden contest	March 21	21
Western Kansas fairs	Nov. 7	3	The smokehouse	March 14	13	Planting table for vegetables	April 4	22
Why Topeka and Hutchinson			Prices on estates advancing	March 14	13	Mulching garden crops	May 9	2
Fairs were held on the same			Regarding the merits of Com-			Made good gardening	Dec. 26	6
date	Nov. 7	3	melina	March 14	15	GRANGE.		
Reminder of American Royal			Rural districts need leaders	March 21	5	Acts adopted by National		
Show	Nov. 7	3	Two kinds of farmers	March 21	5	Grange	Jan. 3	17
Grew many varieties for show	Nov. 7	4	Fall is time to build pond	March 21	6	Home credits at school	Jan. 10	16
Kansas win honors	Nov. 7	9	Commeline of little value	March 21	24	Extract from address by E. E.		
Carlot exhibits at American			Taxing the dog	March 28	15	Reed	Jan. 10	16
Royal	Nov. 7	10	About farm loans	March 28	24	All day Grange meeting	Jan. 17	17
Regarding live stock at Frisco	Nov. 7	11	Education and the farm	April 4	3	Report from Valley Grange No.		
Two big shows off	Nov. 14	3	Long time farm loans	April 4	3	786	Jan. 17	17
Nebraska creamery men attend			More about Commeline	April 4	3	The value of organization	Jan. 17	17
National Dairy Show at Chi-			Drainage lake or basin	April 11	8	Shawnee Grange elects officers	Jan. 31	15
cago	Nov. 21	10	Beautifying home grounds	April 11	10	Letter from Equity Grange	Jan. 31	15
Value of National Dairy Show	Nov. 21	10	Commission rule in rural re-			The Grange Woman's Work		
Dairy show for west	Nov. 28	3	ligion	April 11	18	Committee	Jan. 31	15
Breeders meet in Chicago	Nov. 28	8	Farm home making don'ts	April 11	23	Grange fire insurance	Feb. 7	23
A big Guernsey show	Nov. 28	8	Bulletin board for farmers	April 18	2	Hurricane Grange	Feb. 7	23
Jackson County Live Stock			Fur farming in Kansas	April 18	3	Manhattan Grange meeting	Feb. 7	23
Show	Dec. 5	7	"Rural welfare work"	April 18	3	Jackson County Pomona holds		
Kansas Panama Pacific building	Dec. 12	16	Kansas State debt	April 18	3	a big meeting	Feb. 7	23
Kansas to show pictures at			Half property uninsured	April 18	3	National Grange receives relic		
Panama-Pacific Exposition	Dec. 26	3	Keeping books on the farm	April 25	3	from Greece	Feb. 14	17
FARM AGENT.			The farm workshop	April 25	5	A record service	Feb. 14	17
Work of farm agent in Mont-			Lightning rod good thing	April 25	5	Shawnee County Pomona meets	Feb. 21	25
gomery county	Feb. 7	3	How plants feed	May 2	3	Valley Grange meeting	Feb. 21	25
County agent organizes clubs	Feb. 14	21	Value of birds to the farmer	May 2	6	Oak Grange No. 665	Feb. 28	23
P. H. Ross will address Alfalfa			Farm census in Nebraska	May 2	19	Farmers petitioned for organ-		
club	Feb. 21	3	Value of our building stone	May 2	17	izer	Feb. 28	23
Work of county agents, Ross &			Swimming pool on farm	May 9	3	Work for W. W. Committee	Feb. 28	23
Watkins	Feb. 21	3	Keeping farm accounts	May 9	5	Influence of good Grange hall	Feb. 28	23
Regarding changing name			Growing mushrooms	May 9	5	New Grange stands for	March 7	19
"Farm Adviser" to "Farm			Preservation of fence posts	May 16	5	Reviving Dormant Granges	March 21	27
Assister"	March 7	10	A clean-up week	May 16	5	Suggested program for April	April 4	23
Resignation of Clyde McKee	March 21	3	Farm electric lights	May 30	14	Grange W. W. C. meets	April 4	23
Tryout of Agricultural agents in			Prices for eggs and butter in			Opposed to increased commis-		
Kansas	March 28	3	1913-1914	June 6	8	sion	April 4	23
County agents' work	March 28	4	Eastern Kansas farming meth-			Granges object to increased		
Harvey county farm club	March 28	5	ods	June 20	6	commission for handling hay	April 11	3
District problems big	March 28	6	Handling dynamite	June 20	7	Hand book for W. W. Com-		
Demonstration in the north-			Drainage district organized	June 20	14	mittees	April 11	22
west	March 28	8	Bank damage-but insured	June 20	14	Woman's home problems	April 25	16
Allen county farm bureau	March 28	9	Bank stock for farmers	June 27	5	Favorable farm credit bill	April 25	16
Montgomery Farmers' Club	March 28	10	June crop reports	July 4	3	Grande news	April 25	16
Agricultural agent map for			Activity in western lands	July 4	3	The Grange and the schools	April 25	16
Kansas	March 28	11	Plan for small farm house	July 4	4	Coffey county Grange has large		
Values agents' counsel	March 28	12	Winter Emmer	July 4	6	membership	May 23	5
Leader in farmer's battles	March 28	12	Keep exchange labor account	July 4	7	Attitude of Pomona Grange to-		
He watched the Hessian Fly	March 28	12	Repairing foundations with con-			ward County Farm Bureau	June 6	3
Farm agent wins confidence	March 28	12	crete	July 4	7	Coffey County Pomona Grange		
Nucleus of co-operative effort	March 28	12	That extra dollar	July 4	9	Items	June 20	14
Intills contagious enthusiasm	March 28	12	Good farm investments	July 4	10	"Grange" at Topeka Fair	Aug. 22	3
County agent and better live			Watch for this man	July 4	11	What Grange stands for	Nov. 21	2
stock	March 28	14	Rules for borrowing money	July 11	2	GRASSHOPPERS.		
Harvey County Farmers' Club	March 28	16	Minister should know farming	July 11	2	Recipe for grasshopper de-		
Leavenworth Progressive Club	March 28	17	Disk and plow early	July 11	3	stroyer	July 4	2
Brief life stories	March 28	18	To "Ground" wire fence	July 11	5	Grasshopper outbreak	July 11	6
Cowley County Farm Bureau	March 28	23	To prevent washes	July 11	9	Do not use vinegar in bran		
Allen County Farm Bureau	April 18	10	Use of summer fallow	July 18	2	mask	Aug. 15	4
Agricultural agent legislation	May 2	5	Helps the farmer	July 18	3	Grasshopper situation	Aug. 29	3
New agent for Linn county	May 9	3	Farmers to hold weekly meet-			Destroying eggs of grasshop-		
More agricultural agents	May 16	3	ings	July 18	3	pers	Oct. 31	6
Miami secures capable agent	May 30	9	To minimize labor on farm	July 18	6	Bran mash still for grasshop-		
Nine county agents	June 6	2	Reorganize cropping plan	July 18	7	pers	Oct. 31	7
Demonstration on the farm	June 6	3	Setting fields with buffalo sod	July 25	4	Bran mash formula extends to		
Selfish view regarding farm			Bank stock for farmers	July 25	4	other states	Dec. 26	3
agents	June 13	2	Exclusive grain farming a fail-			HESSIAN FLY.		
Edward C. Johnson makes year-			ure	July 25	6	The Hessian Fly	June 6	3
ly report	July 4	3	Live stock necessary for suc-			Disk and plow early to control		
Leavenworth Co. agent will			cess	July 25	6	Hessian Fly	June 6	5
handle harvest hand problem	July 4	3	Western farmers should invest			Hessian fly warning	July 11	6
County agent reasonably busy	Oct. 31	9	in live stock	July 25	7	Hessian fly can be controlled	July 25	4
Farmers need a leader	Dec. 19	3	Weight of barbed wire spools	Aug. 1	7	Hessian fly in wheat	Nov. 21	4
Benefits derived through county			If you wish to sell hay	Aug. 8	3	HOG CHOLERA.		
agent	Dec. 26	3	In years of plenty provide for			Great losses from hog cholera	Feb. 14	14
FARM HAND.			short years	Aug. 8	9	Hog cholera spreads	Feb. 21	14
Wages for farm hands in West-			War effect on trade	Aug. 8	9	Vaccinating brood sows	March 7	15
ern Kansas	June 6	3	War effect on farm products	Aug. 22	2	Menace of hog cholera	March 14	14
Regarding harvest hands	June 13	3	Estimating crop conditions	Aug. 22	4	Federal government fights		
Labor and social conditions	Sept. 12	3	Plowing to save moisture	Aug. 22	5	cholera	March 21	16
FARMERS' INSTITUTE.			Divide the acreage between the			Important thing in eradicating		
District farmers' meeting	Jan. 3	3	earlier and later varieties	Aug. 29	6	hog cholera	April 25	3
Horton farmers progressive	Jan. 10	9	Farmers must keep more live			Pigs may have cholera	May 16	5
The week of institutes	Jan. 17	7	stock	Aug. 29	6	Hog cholera prevention	May 16	7
Jewell Co. takes the lead	Jan. 17	7	Belgian children kept on farm	Aug. 29	11	Sanitation and hog cholera	May 23	4
Farmers plan cholera test	Jan. 24	10	Does Mrs. have a good			Fight against hog cholera	May 23	4
Reviving community life	Feb. 14	3	washer?	Sept. 5	24	Regulations concerning hog		
Western farmers meet	Feb. 14	3	Do not depend on one crop	Sept. 5	27	cholera	May 30	5
Farmers' institute a school	Feb. 14	17	Farms owned by railroads	Sept. 12	3	Hog cholera prevention	June 6	9
Movable schools for women	Feb. 21	21	War effect on farmer	Sept. 12	5	Fake hog cholera cure	June 13	10
Girls Garden and Canning			Ease in changing wagon boxes	Sept. 12	9	Pigs may have cholera	June 30	5
Club	Feb. 28	8	Which is more profitable crop?	Sept. 12	9	Benetol not cholera cure	June 27	11
Oakley farmers' convention	Feb. 28	15	Block and tackle for butchering	Sept. 19	9	Cholera control in Tennessee	July 4	11
Trego County Agricultural			Variety reports from Scott	Sept. 26	2	Campaign against hog cholera	July 18	10
School	Feb. 28	17	Farmers' educational move-			Breeders object to present rul-		
Inst. members urged to discuss			ment	Sept. 26	3	ing	Aug. 1	10
seed bed preparation	April 11	3	Keep land at	Sept. 26	3	Veterinarians must be thorough		
About farmers' convention at			Dairy barn should be protected			ly trained	Aug. 1	10
Oakley	April 11	8	against lightning	Sept. 12	6	New rules formed	Aug. 1	10
Increased membership in insti-			Urges pond building	Sept. 12	6	Pure-bred hogs should be vac-		
tutes	April 11	24	Geary farms lighted	Oct. 3	7	inated	Aug. 1	11
Every county has at least one			The best selling time	Oct. 3	7	Fighting hog cholera	Sept. 5	18
institute	Sept. 12	3	Lifting pump head from well	Oct. 3	3	No hog vaccination in Canada	Sept. 26	3
Institutes closer to the farm	Oct. 3	8	Farming complex business	Oct. 10	3	Kansas hog cholera campaign	Oct. 3	12
The big institute	Oct. 31	3	War effect on southern farmer	Oct. 10	3	Hog cholera advice	Oct. 10	10
November farmers' institute	Oct. 31	7	Renters making more money			Government cholera work in		
March arrangements attend			Farm management	Oct. 17	3	Immunizing pigs	Nov. 7	6
State Farmers' Institute at			This country no place to rush	Oct. 17	3	No hog cholera in new country	Nov. 21	8
Manhattan	Nov. 14	3	What is your farm income?	Oct. 17	5	Ninety per cent of all hog dis-		
Farmers' institute at Hays	Nov. 21	6	Study your business	Oct. 24	3	eases cholera	Nov. 21	8
Annual institute round-up	Nov. 28	2	Preserving fence post	Oct. 24	5	Prevention of hog cholera	Nov. 21	8
Opportunity for the boys and			Believes in deep plowing	Oct. 24	7	How to control hog cholera	Nov. 21	8
girls	Dec. 5	3	Fall plowing for insect control	Oct. 24	7	Fighting animal diseases	Nov. 28	3
Three important meetings	Dec. 5	6	Cornstalks and snow	Oct. 24	7	Immunizing suckling pigs	Nov. 28	8
Concerning Rago farmers' insti-			Fall plowing again	Oct. 31	3	Guard against cholera infection	Dec. 19	6
tute	Dec. 19	3	Concrete instruction costs noth-			HOGS.		
Efficient method employed by			ing	Oct. 31	7	Coal for hogs	Jan. 10	8
Talbert	Dec. 19	3	More farm management	Nov. 7	3	Ration for fall pigs	Jan. 10	8
Model farmers' institute officer	Dec. 19	15	Fall plowing must not be over-			Sleeping quarters for hogs	Jan. 10	10
Farmers' Institute at Vermil-			looked	Nov. 7	3	To kill lice on hogs	Jan. 10	19
lion	Dec. 19	15	Pit storage fruits and vegeta-			Hog prices advance	Jan. 17	2
Big poultry meeting	Dec. 26	12	bles	Nov. 7	6	More money in sow than in		
FARM PESTS.			What profitable farming means	Nov. 14	3	wheat	Jan. 24	8
Destruction of prairie dogs	March 7	5	Small concrete buildings	Nov. 14	4	Care of brood sow	Jan. 31	4
Poison pocket gophers	March 7	5	Size of farm and income	Nov. 14	4	Cheyenne Co. hogs topped mar-		
Schools study "bugs"	March 14	3	Hogs must follow cattle	Nov. 14	5	ket	Feb. 7	20
Getting rid of English spar-			Feed listing for Thomas county	Nov. 14	6	Hog men keep records	Feb. 7	20
rows	March 14	5	Every farm needs a hoist	Nov. 14	9	Starting in better hogs	Feb. 21	14
The Kafir ant	April 18	2	"Get cow, pig and hen"	Nov. 21	3	Mulefoot hog record	Feb. 21	14
The "Mysterious" is common			To keep the young folks on the			Brood sow and litter	Feb. 28	6
cut worm	April 18	3	farm	Nov. 21	3	Hog feeding bulletin	Feb. 28	14
The green bug	April 25	3	How to care for the stubble	Nov. 21	4	Keep track of the pigs	March 7	4
How to destroy ants in kafir	May 2	3	Fall handling of cane land	Nov. 21	6	Raising hogs profitably	March 7	9
Poisoning pocket gophers	May 2	5	Barn ventilation essential	Nov. 21	6	Mark the pigs	March 7	14
Exterminating rats	May 2	6	One windmill helps farm in-			Saving pigs in zero weather	March 7	14
Poison for cockroaches	May 2	6	come	Nov. 21	7	Feeding hogs for market	March 14	5
Fight the flies	May 23	3	Borrowing to buy cattle	Nov. 28	3	Don't stuff the brood sow	March 14	7
Destroying rose insects	May 30	5	Getting into cattle	Nov. 28	4	What will pork be worth?	March 21	7
Spray for "plant lice"	June 6	7	Storing sweet potatoes for fami-			Government hog tonic	March 28	14
Army worm control	June 6	7	ly use	Nov. 28	6	Working the hogs	March 28	14
Fighting army worms	June 20	3</						

Subject	Date	Page	Subject	Date	Page	Subject	Date	Page
Hogs in alfalfa pasture	June 6	9	To remove rust from stoves	April 18	14	Planting kafir	Jan. 31	8
Conserve pig crop	June 13	10	Pass it on	April 18	14	Regarding different varieties of kafir	March 14	10
Shade for hogs	June 20	10	To make a table cloth	April 18	14	Comparative value of kafir and corn	March 14	10
Cheap production of pork in California	July 4	8	longer	April 18	14	Kafir and cane for the silo	March 14	10
Rules on shipment of hogs in Kansas	July 4	11	Pain in the darning ball	April 18	14	Desirability of suitable kafir seed for planting	March 14	11
New rule for handling stock hogs	July 11	2	To make bleaching water	April 25	17	Kafir acreage should increase	April 25	6
Argentina grows hogs	July 11	2	To clean velvet or plush	May 2	12	Big silage yields from kafir	May 2	6
Tankage as hog feed	July 11	5	To clear drain pipes	May 2	12	Grow kafir and play safe	May 9	3
Soaking corn for hogs	July 11	5	To fix the catch on garters	May 2	12	Allen county tests kafir	May 23	3
Shipping hogs in hot weather	July 11	10	About making wheel tinning	May 2	12	Kafir acreage increasing	Sept. 26	6
Importance of pure-bred sires	July 25	11	To grasp hot cooking utensils	May 2	12	Kafir outfields corn	Sept. 26	7
Feed wheat to hogs	Aug. 8	6	To stitch a cuff to a shirtwaist	May 2	12	African kafir varies in height	Oct. 17	7
Hog shipping rules	Aug. 8	6	Use for old suspenders	May 2	12	African kafir not uniform	Oct. 31	6
New rules on shipping hogs	Aug. 8	10	To keep crocheted thread clean	May 2	12	African kafir in Oklahoma	Nov. 7	6
The hog wallow	Aug. 8	11	To gather ruffles	May 2	12	Kafir brings profits	Nov. 14	2
Green corn for hogs	Aug. 15	12	To tell long from short table cloth without unfolding	May 2	12	Kafir makes better average return per acre than corn	Dec. 26	10
Need not vaccinate show hogs	Sept. 5	3	Shrinking wash goods	May 2	12	Kafir and milo planting	Dec. 26	6
Future hog industry	Sept. 5	9	Add a sleeping porch to new house	May 9	10	KANSAS FARMER.		
Poland China Journal	Sept. 12	3	To make a faded dress white	May 9	10	Regarding New Year resolutions in Kansas Farmer	Jan. 24	3
Skim milk and shorts for hogs	Oct. 3	9	Something new for stuffing sofa pillows	May 9	10	Friend of Kansas Farmer	April 11	24
Hogs and cottonseed meal	Oct. 3	9	Teach children to help	May 9	10	He is strong for Kansas Farmer	June 20	15
Pigs not immune	Oct. 3	9	To remove old wall paper	May 9	10	Kansas Farmer seed wheat club helps western farmers	Oct. 3	3
Watering device for hogs	Oct. 17	5	Waging war on household pests	May 9	10	Kansas Farmer index	Dec. 26	3
What breed of hogs?	Oct. 24	12	To wash hair brushes	May 9	10	K. S. A. C.		
Western Kansas for pork production	Nov. 7	4	Read latest books	May 16	12	Boys' and Girls' contest work	Jan. 24	3
Immunizing pigs	Nov. 7	6	To make bib for baby	May 16	12	Corn Agricultural College	Jan. 31	3
Hogs must follow cattle	Nov. 14	5	To dry clean lace	May 16	12	K. S. A. C. girl wins gold medal	Jan. 31	3
Rid hogs of lice	Nov. 14	10	To keep carpet moths away	May 23	10	Enrollment in correspondence course in Extension Dept. increasing	Jan. 31	3
Handling fall pigs	Nov. 28	8	To sharpen blunt needles	May 23	10	Kansas steers win in Denver	Jan. 31	11
Feeding the pregnant sow	Dec. 26	10	To finish embroidered scalloped course in Extension Dept. increasing	May 30	12	Better poultry methods by correspondence	Feb. 7	23
HORSES.			To remove spots from wool fabrics	May 30	12	Poultry for boys and girls	Feb. 14	3
Colt show great education	Jan. 3	9	To care for a rubber plant	May 30	12	Boys' and girls' contest	Feb. 14	3
Feed horses silage cautiously	Jan. 3	22	New sashes and girdles	May 30	12	Plan for a third farmers' convention	Feb. 21	3
Proper size in drafters	Jan. 17	14	To mark places for buttons	May 30	12	More engineering at K. S. A. C.	March 14	3
Colt show leads to good horses	Jan. 24	9	To prevent wrinkles in the ironing sheet	May 30	12	Agriculture for teachers	March 14	3
Watch straw fed horses	Jan. 31	11	Screen the back porch	May 30	12	New barn at K. S. A. C.	March 14	12
Plenty of common horses	Jan. 31	11	To mend old window shades	May 30	12	Boys learn art of cooking	March 14	19
Good drafters scarce	Feb. 14	8	Teach your children self-control	May 30	12	Cattle feeders meet at K. S. A. C.	March 21	16
Statistics on horses and mules	Feb. 14	14	Porch furnishings	June 6	10	The Kansas experiment	March 28	20
Value of good stallion	Feb. 14	14	Summer care of stove	June 6	10	Waters to Philippines	April 4	3
Horse prices hold level	March 7	20	How to cause geraniums to branch out	June 13	12	Summer school	April 4	3
Selection of the stallion	March 14	12	To launder pink garments	June 13	12	College credit for farm work	April 4	23
Look to stallion license	March 21	16	To starch sheer materials	June 13	12	Appointment of Rev. Walter Burr	April 11	3
Preparing horse for spring work	March 21	16	To remove traces of smoke from a room	June 13	12	Concerning commencement day address	April 11	3
Stallion registration	April 4	14	To clean straw in cane seated chair	June 13	12	Judging live stock at K. S. A. C.	April 11	5
The spring stallion show	April 4	14	To make colored beads	June 13	12	Home economics school	April 11	13
Cost of colt at weaning time	April 11	12	To renovate feathers	June 13	12	Carry lectures in Kansas	April 25	3
Percheron pedigree question	May 2	5	Treatment for asparagus fern	June 20	12	Graduates back to farm	April 25	16
Watch the work horses	May 2	8	Home-made device for pitting cherries	June 20	12	Ovation to President Waters	May 16	3
Common horses a drag	May 2	8	Petticoats that one can't see through	June 20	12	Preachers study agriculture	May 23	3
Working the draft stallion	May 9	8	Teach children order	June 20	12	Model mill opened	May 23	3
French draft and Percheron horses	May 16	5	Magical writing	June 27	12	Rural education work	May 30	3
Prevention of sore shoulders	May 23	6	Substitute for tape for blouses	June 27	12	The "better agricultural campaigns"	June 6	3
Chicago's team requirements	May 30	10	What to do with a hat box	June 27	12	School for rural leaders	June 13	3
Co-operative improvement of horses	May 30	14	Protection for points of scissors and crochet hooks	June 27	12	Extension work among prisoners	June 13	3
Cause for horses having sore neck and shoulders	June 6	6	Names of dress fabrics	June 27	12	Requirements to be members of Gamma Pi Gamma	June 13	3
Hot weather horse care	June 20	5	The jug method	July 11	12	Waters will return to Kansas	June 13	3
Registry of running horses	June 20	14	To fix flower holders	July 11	12	K. S. A. C. commencement	June 20	3
Draft horses in demand	June 27	9	To remove fruit stains from linen	July 11	12	Instructors will visit teachers' institutes	June 20	3
Summer don'ts for horses	June 27	9	Corn popper in camping	July 11	12	Jardine delegate of Panama-Pacific Exposition	July 11	5
Regarding Maine test for horses kept into state for exhibition purposes	July 27	9	Oil your stock	July 11	12	K. S. A. C. best in the world	July 18	3
Feed work horses carefully	July 11	10	Woman's judgment of woman	July 18	12	Eighth annual conference held at K. S. A. C.	July 25	3
Raising horses in Western Kansas	July 18	11	Destroying black crickets	July 25	12	K. S. A. C. fair exhibits	Aug. 1	3
Buying horses for British army	Sept. 26	5	Window curtains	July 25	12	K. S. A. C. correspondence school	Aug. 8	3
Opportunity of American stockman	Oct. 10	3	Planning your day's work	July 25	12	Forty neighborhood schools	Aug. 29	2
Cleaning up the cheap horses	Oct. 10	10	Salad oil from nuts	Aug. 1	12	The preparatory school of agriculture	Aug. 29	3
Barrenness in mares	Oct. 17	12	To renovate dark serge	Aug. 1	12	Pres. Waters of K. S. A. C. reports to Philippines	Oct. 17	3
New stallion licenses	Oct. 31	3	To sew lace on centerpiece	Aug. 1	12	Will not find sale for inventions	Nov. 7	4
Large per cent feed consumed by horses	Nov. 7	3	Home-made cedar box	Aug. 1	13	Larger per cent students self-supporting	Dec. 5	3
American-bred horses	Nov. 7	3	Farm women's club	Aug. 8	13	K. S. A. C.'s share in Belgian relief movement	Dec. 5	3
Feed consumed by horses	Nov. 7	4	To remove mildew	Aug. 8	13	Two-thirds of graduates take up farming	Dec. 19	3
Horse judging class	Nov. 7	10	To remove ring caused by gasoline	Aug. 8	13	Short course costs about \$70	Dec. 19	5
The full use of farm horses	Nov. 7	18	To get rid of cockroaches	Aug. 8	13	Big idea in farmers' schools	Dec. 26	2
Stallion law brings improvement	Nov. 21	4	Castor oil for ferns and palms	Sept. 5	20	Influence of the work of the Extension Division	Dec. 26	3
Age to breed fillies	Nov. 28	3	How to use paraffin	Sept. 5	20	KITCHEN HINTS.		
America's opportunity	Nov. 28	3	Begin thinking of Christmas gifts	Sept. 5	21	To keep fruit cake moist	Jan. 3	14
Oats and corn for horse feed	Dec. 5	5	Cheerfulness at meal time	Sept. 5	21	To soften lemons	Jan. 10	17
Cost of keeping a horse	Dec. 5	7	The use of spinach	Sept. 5	21	To remove yellow of fried eggs from dish	Jan. 10	17
Improvement of draft horse	Dec. 12	6	Give plants a rest	Sept. 5	21	To prevent doughnuts soaking up grease	Jan. 24	14
Horse improvement in Jewell County	Dec. 12	6	Preparing soil for potted plants	Sept. 5	21	To prevent grease from popping	Jan. 24	14
Cane for brood mares	Dec. 12	7	To get rid of red ants	Sept. 5	21	To cool a freshly baked cake	Feb. 7	12
Good stallion increase	Dec. 19	7	International Congress of Farm Women	Sept. 12	11	To clean eggs	Feb. 7	12
Cottonseed meal for horses	Dec. 26	7	Will pay to see how Manhattan does it	Sept. 12	11	Rules of good pastry cook	Feb. 7	12
HOUSEHOLD HINTS.			War affects fashions	Sept. 19	10	To boil cracked eggs	Feb. 21	8
Old bath towels	Jan. 3	14	New use for old blankets	Sept. 19	10	Cooking cabbage and cauliflower	Feb. 21	8
To prevent fires	Jan. 3	14	Make use of rag	Sept. 19	11	To clean fish	Feb. 21	8
Guarding against measles and scarlet fever	Jan. 3	14	Watch baby's milk	Sept. 19	11	To bake round loaves of bread	Feb. 28	16
To clean spots with gasoline	Jan. 10	17	What is efficiency	Sept. 19	11	To keep kettles clean	March 14	18
To extract a splinter	Jan. 10	17	Get ready for next season's warm spell	Sept. 19	11	To remove tea stains from chinaware	March 14	18
To keep a veil nice	Jan. 17	8	A woman should take recreation	Sept. 26	12	To open a cocoanut easily	March 14	18
To thread a machine needle	Jan. 17	8	Organize a neighborhood club	Sept. 26	12	To cut fresh bread	March 14	18
To remove ink stains	Jan. 17	8	How to spend the winter evenings	Oct. 3	14	To clean copper articles	March 14	18
To remove lines from stamped goods	Jan. 17	8	How to dry wet shoes	Oct. 3	15	About cooking fish	March 14	18
Advice to those who crochete	Jan. 17	8	About ladies' apparel	Oct. 3	15	To improve boiled starch	March 14	18
Handkerchiefs with colored borders	Jan. 17	8	Eggs as health remedies	Oct. 3	15	To remove cake from pan easily	March 14	18
To roll a narrow hem	Jan. 17	8	Food combinations	Oct. 3	15	Home canning of vegetables	March 14	20
To turn a hem in heavy goods	Jan. 17	8	Is your teacher qualified	Oct. 3	15	Early spring dietary	March 14	20
To clean a washable veil	Jan. 17	8	Cheese cloth squares convenient	Oct. 10	12	Baking quantities of flour	March 14	20
Some hints on dyeing	Jan. 17	8	What to do with soiled window shades	Oct. 10	12	A substitute for white of eggs	March 21	9
Covering for the bath tub	Jan. 17	8	A substitute for a wardrobe	Oct. 10	12	A pie hint	March 28	20
Russian crash for dresser scarfs	Jan. 24	14	To moisten pie crust with milk	Oct. 17	11	Place salt under baking tins	March 28	20
Save the coal bill	Jan. 24	14	To destroy weevil in seed peas	Oct. 31	11	Kitchen the most important room	April 4	21
Choose plain wall paper	Jan. 31	6	Filling the house with linen	Oct. 31	11	Do not leave an egg beater in water	April 25	14
Give baby plenty of water	Jan. 31	6	To mend torn linen	Oct. 31	11	To cook veal	April 25	14
To warm a kitchen skin	Jan. 31	6	Rejuvenate the worn bedspread	Nov. 7	14	Mixture for stamping patterns	April 25	14
The soft smooth skin	Jan. 31	10	Softening hard water	Nov. 7	14	To hem a veil on the machine	April 25	14
Home help	Jan. 31	10	A little talk on soaps	Nov. 7	15	For a sanitary refrigerator	April 25	14
What to do for burns	Jan. 31	13	How to sew on buttons	Nov. 7	15	Banish farm waste	April 25	14
To keep rubbers from wearing out at the heel	Feb. 7	12	To clean picture frames	Nov. 14	12	Dried fruits valuable diet	May 2	12
To remove ink from carpet	Feb. 7	12	How to wash chiffon veils	Nov. 14	12	Use care in marketing	May 2	12
Housekeeping at white house	Feb. 14	8	To keep out moths	Nov. 14	12	To keep a cake moist	May 9	10
Salt in starch	Feb. 21	8	To keep clothes from freezing	Nov. 28	12	Value of heating a lemon	May 9	10
Just a touch of hand embroidery	Feb. 21	8	How to clean a sick room	Nov. 28	12	To make good pie crust	May 9	10
To remove stain from enameled ware	Feb. 28	16	How to make washable covers for sofa pillows	Nov. 28	12	To fry fish	May 9	10
To make tips for shoe laces	Feb. 28	16	To whiten unbleached table linen	Nov. 28	12	To clean fruit jars before using	May 9	10
To wring sheets and tablecloths	Feb. 28	16	To remove iron rust	Nov. 28	13	To remove stove polish from hands	May 9	10
To keep patterns on the cloth	Feb. 28	16	Removing tobacco fumes	Nov. 28	13	Keep memorandum book in kitchen	May 16	12
To wash and dry woollens	Feb. 28	16	To wash sauteen	Dec. 12	15	Butter in cake frostings	May 16	12
Medicinal virtue of lemons	Feb. 28	16	Use milk instead of starch for gingham	Dec. 12	15	Plan meals ahead	May 16	12
Correct sitting position	Feb. 28	16	How to make eyelets	Dec. 12	15	Peeling apples	May 16	12
Living on 20 cents a day	March 7	16	To restore worn-out drawwork	Dec. 26	11	To clean a milk strainer	May 23	10
The spring styles	March 7	16	How to pack away white goods	Dec. 26	11	Cold coffee instead of milk in cakes	May 23	10
Select appropriate wall coverings	March 7	16	To mend sheer material	Dec. 26	11	To make lamps burn brightly	May 23	10
To remove paint from window glass	March 14	18	IRRIGATION.			To whip cream	May 23	10
To clean bamboo furniture	March 14	18	Grew 2,500 bushels of apples	Jan. 24	9	To remove stains from kitchen knives	May 30	12
New kind of corset cover	March 14	18	Sub-irrigating vegetable garden	Jan. 31	6	To overcome flat taste in boiled water	May 30	12
Pressing when dressmaking	March 14	18	Sub-irrigation in Clark County	Feb. 21	4	To prevent syrup from sticking to sides of a pitcher	May 30	12
To steam out splinters	March 14	18	Pumps for well irrigation	Feb. 21	4	To keep cake from burning	June 13	12
Disciplining baby	March 28	20	Help in irrigation	March 14	8	To kill odor of refrigerator	June 13	12
To clean lamp burners	March 28	20	Laying tile for sub-irrigation	March 14	8	Add coffee to stove blacking	June 13	12
To scour ivory knife handles	March 28	20	The irrigation farmers' troubles	March 14	15	To cut butter	June 13	12
To color faded blue garments	March 28	20	Irrigating with pump	April 18	9	To cook peas	June 20	12
To remove old paint and varnish	March 28	20	Eileen seeks nomination	July 11	3	New use for metal shoe horn	June 27	12
To remove fresh paint smell	March 28	20	Lifting water 200 feet	Aug. 1	4	Rule for testing jelly	June 27	12
New use of painter's brush	March 28	20	Irrigation Congress meets at Scott City	Aug. 29	3	Making ice cream at home	July 4	13
To keep moths from woolen articles	March 28	20	Irrigation by windmills	Sept. 19	3	To keep chocolate dip from		
To clean silver	April 11	20	Irrigationists active	Oct. 3	3			
To press velvet	April 11	20	Irrigation for Kansas	Oct. 10	5			
Laundering eyelet embroidery	April 11	20	Irrigation three-acre tract	Oct. 24	5			
Glycerine for removing stains	April 11	20	Cost of western irrigation	Oct. 31	7			
A new use for lemons	April 11	20	JOHNSON GRASS.					
Home-made holder for crocheted thread	April 11	20	Johnson grass on Sudan grass	Oct. 10	5			
Not the husband's money	April 11	20	Law of Kansas on Johnson grass	Oct. 10	7			
Where vulgarity runs rife	April 11	20	Johnson grass in Greenwood County	Nov. 28	5			
Allow children to help	April 11	20	Inquiry concerning Sudan and Johnson grass	Dec. 12	8			
			Habits of Johnson grass	Dec. 19	4			
			Kafir seed for 1914 crop	Jan. 17	4			

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Market observations	April 4	8
Necessity of a scientific marketing system	April 11	9
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Market cattle statistics	June 20	10
Can help sell your fruit	Oct. 10	13
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The meat situation	Jan. 3	6
Neighborhood meat club	Jan. 10	10
Investigate meat situation	Jan. 24	3
Argentine meat shipments	Jan. 31	5
Consumers cannot expect cheap meats	Jan. 31	9
Mutton to be scarce	Jan. 31	11
Future of meat business	Feb. 21	5
Meat at any price	Feb. 28	3
Decrease in meat supply	Feb. 28	3
Meat shipments	Feb. 28	15
Shipment of beef from Argentine	March 7	14
Filling the smokehouse	March 7	19
Americans not pleased with Argentine beef	March 14	12
Brand foreign meats	March 28	14
Still shipping beef from Argentine	May 30	5
Meat prices to rise above record	July 25	3
Beef prices tend upward	July 25	10
Outlook for beef, pork and mutton	Aug. 22	2
Demand for veal increases	Oct. 24	12
Increased meat production	Nov. 7	5
Now use sterilized meat	Nov. 7	10
Farm meat curing	Nov. 14	5
Committee appointed to make study of meat problem	Dec. 26	10
MILLET.		
Two crops of millet in one season	March 14	5
Is millet, cane and kafir seed obtainable	July 11	2
Longevity of millet seed	Sept. 12	4
Millet helps soil for wheat	Dec. 5	3
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Kansas milo grown in 1913	March 14	3
Milo and kafir for fattening hogs	Nov. 7	7
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Milo yields large this year	Dec. 5	5
Farmer improves milo by selection	Dec. 19	5
Kafir and milo planting	Dec. 26	6
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Cuba's Banana Industry	Jan. 3	5
Long distance weather forecasting	Jan. 3	19
Where Horace comes from	Jan. 10	17
A Burmese marriage superstition	Jan. 10	17
The smallest beast of prey	Jan. 10	19
Impure air dangerous	Feb. 14	9
Coaling done by girls	Feb. 14	19
The dangerous hatpin	Feb. 21	8
The world's seven Bibles	Feb. 21	8
Efficiency for the home	Feb. 21	11
Regarding wages of rural mail carriers	Feb. 21	15
Kansas death rate	March 14	11
Giving an elephant a bath	March 14	18
About "Mary and Her Lamb"	March 21	18
The boy and his money	March 21	18
In Queen Mary's wardrobe	March 21	18
Ten great inventions	April 4	18
Messiah festival	April 4	21
Should children work?	April 4	21
Chicken thieves shun A. H. T. A.	April 11	17
Eight methods of killing flies	April 11	23
Announcement of Pres. of the Santa Fe	April 25	3
Biggest convention of the year	April 25	11
Fish ponds need vegetation	May 30	9
Regarding Kansas rate for phone service	June 6	3
No more typhoid in the army	June 13	5
Orders issued by Union Pacific	June 20	14
Farmers' Elevator Organization	July 11	6
Blake's weather forecast	July 11	7
Weather proof whitewash	July 11	9
Rainfall in Kansas during June 1914	July 11	9
College graduates farm	July 18	9
Stockmen's summer picnics	July 18	11
Coburn responsible for everything agricultural in Kansas	July 25	3
Poison bran mash	July 25	4
Now for fish literature	Aug. 1	7
To clean out litter pipe	Aug. 1	7
Why be neighborly	Aug. 8	5
Boys' and girls' photo contest	Aug. 15	3
Big buying on trade day	Aug. 22	5
Burr busy in "social service"	Aug. 22	5
War will benefit us	Aug. 29	3
Two Kansans in far east	Aug. 29	3
For convenience western patrons	Aug. 29	11
The charm of good English	Aug. 29	11
Newspapers should interest country readers	Sept. 5	24
Missouri suffered for lack of rain	Sept. 19	3
Kansas rainfall during August, 1914	Sept. 19	12
Drainage of overflow lands progressing	Sept. 12	8
New chautauqua feature	Sept. 12	9
Census of Kansas	Oct. 10	3
Community improvement	Oct. 10	4
Did you get your share?	Oct. 24	7
Rainfall over Kansas Sept., 1914	Oct. 31	9
Agriculture of Germany	Nov. 7	3
The possibilities of war	Nov. 7	18
Rainfall over Kansas Oct., 1914	Nov. 21	2
Will you help relieve Belgium?	Nov. 21	3
To erect a "friendship house"	Nov. 21	3
Rainfall does not increase	Nov. 28	5
Fall care of lawn	Nov. 28	7
Use of term, "thoroughbred"	Nov. 28	9
Vacant public lands in Kansas	Dec. 26	9
MOTORCYCLES.		
Motorcycle extends utility	Feb. 21	10
Motorcycle dealers' show	April 4	10
Agricultural motorcycles	June 13	7
MULES.		
Fattening mules for market	Jan. 3	4
Mules continue in demand	Jan. 10	6
Statistics on horses and mules	Feb. 14	14
OATS.		
Oat farming	Feb. 14	10
Oats for early feed	April 18	8
Outlook for oat crop around Topeka	June 6	8
The oat crop	June 27	3
OLEO.		
Increase in output of oleo	Jan. 3	12
Test to determine oleo	March 7	5
The butterline case	April 18	12
Oleo questions and answers	April 25	18
Oleo manufacturer sentenced to penitentiary	June 6	8
Property sold to highest bidder	Oct. 27	8
Vegetable margarine substitute for butter	Oct. 24	8
Yolks of Chinese duck eggs to color oleo	Nov. 28	10
Discussion by McKay	Nov. 28	10
ORCHARDS.		
Kansas apple growing	Jan. 3	5
Grew 2,500 bushels of apples	Jan. 24	9
New spraying schedule	Jan. 31	7
Kansas orchard doctor busy	Feb. 14	19
Latest spraying schedule	Feb. 28	8
To improve next season's fruit crop	Feb. 28	9
New idea in fruit growing	Feb. 28	13

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Use of orchard heaters	March 7	5
Orchardists wonder why	March 7	6
Orchard and garden notes	March 7	13
Pear trees fail to bear	March 14	7
The sprink cankerworm	April 4	11
Insurance against frost	April 11	19
Cultivate the orchard	April 25	3
Spray must be used with care	May 2	9
Spray the orchard	May 2	10
Result of spraying Wathena orchards	May 9	2
Controlling apple blotch	May 9	3
Rejuvenating old orchard	May 9	5
Canker difficult to control	July 4	11
To boost orcharding	July 18	3
Winter apple storage	Sept. 26	5
The 1914 apple crop	Sept. 26	5
Novel orchard movement	Oct. 3	8
Kansas orcharding	Oct. 10	3
Apple growing possibilities	Oct. 24	12
Screen protects trees from rabbits	Nov. 7	4
PASTURES AND PASTURING.		
Early pasture crops	March 14	7
Seeding poorly drained land	March 21	11
Rape pasture for hogs	April 4	3
Farm pastures	April 4	6
Fame grass for pasture	April 11	9
Give pastures good start in spring	April 11	15
Bermuda for hog pasture	April 11	15
Summer forage for hogs	May 23	6
Matter of conserving wild grass pastures	June 6	6
Rape in corn	July 11	3
Pasture conditions good	July 25	10
Western Kansas pasturage charges	Oct. 3	11
Pastures of western Kansas	Oct. 24	6
Acres required to support an animal	Oct. 24	6
The number of cattle per quarter section	Oct. 24	6
Sorghum crop a supplement to pasturage	Oct. 24	6
Scarcity of native pasture	Oct. 24	6
Pasturing frosted sorghums	Nov. 14	5
On pasturing alfalfa	Dec. 5	5
PERSONALS.		
Death of J. F. Stodder	Feb. 14	14
Waters to Philippines	April 4	3
Appointment of Rev. Walter Burr	April 11	3
Walter Olin appointed agricultural commissioner for Denver & Rio Grande	April 11	3
Death of Walter Wellhouse	May 9	3
Lippincott honored	May 30	3
Dietrich dies in Idaho	May 30	3
Death of James N. Pike	May 30	3
Retirement of C. P. Stone	June 6	3
Death of Lou Burk	June 13	11
W. L. Blizard will judge draft horses	June 20	3
Omar I. Oshel wins scholarship	June 20	8
Degrees conferred upon Hon. James Wilson and Prof. G. L. McKay	July 4	3
Peiham, new secretary of Horticultural Society	July 4	3
Elling to succeed Bower as District Agricultural Agent	Aug. 29	3
Peiham as secretary of the State Board of Horticulture	Aug. 29	3
Mr. Kinzer resigns	Sept. 19	3
Sec'y. Houston to address Kansas State Board of Agriculture	Oct. 17	3
Gillette capable judge	Nov. 28	10
Secretary Houston to address State Board of Agriculture	Dec. 5	3
Whitney, new secretary of Horticultural Society	Dec. 19	3
POEMS.		
Brad's bit o' verse	Jan. 3	14
My mother	Jan. 3	14
In the land of let's pretend	Jan. 24	14
Little mother	March 21	18
A seed thought	April 11	20
Father's other suit	April 25	14
Oh, you May Day!	April 25	14
Funston	May 30	12
Round father's grip	June 13	12
Chores	June 20	12
POULTRY.		
Breeds and Breeding.		
Keep only layers or breeds	Jan. 3	16
Get books on "Care and Management of Poultry"	Jan. 17	16
Study proper mating of fowls	Jan. 31	14
Investigate qualities of new breeds	Jan. 31	14
Poultry production big business	Feb. 7	3
Takes strong breeds to grow	Feb. 7	3
Breed from hens, not pullets	Feb. 7	3
Why I breed Buff Rocks	Feb. 7	4
Single Comb Leghorns	Feb. 7	4
Barred Plymouth Rocks	Feb. 7	4
Buy cockerles early	Feb. 7	4
Why we raise White Wyandottes	Feb. 7	4
Which is the best breed?	Feb. 7	4
Light Brahmas as utility fowls	Feb. 7	15
Why White Rocks are the best	Feb. 7	15
The why of the Leghorn	Feb. 7	15
S. C. White Leghorns	Feb. 7	15
Mongrels do not pay	Feb. 7	19
Small breeds and egg size	Feb. 7	19
Mature hens for breeding	Feb. 7	31
Ever popular White Wyandottes	Feb. 7	32
Buff Wyandottes	Feb. 7	32
Mating of breeding pens	Feb. 14	20
Breeding from immature fowls	Feb. 14	20
Too many hens for one male	Feb. 14	20
New variety of fowls	Feb. 14	20
Barred Plymouth Rocks	Feb. 14	20
Poultry that pays me best	Feb. 21	21
Get rid of weak, deformed chicks	Feb. 28	20
Regarding haphazard mating	Feb. 28	20
Regarding prize winners	March 7	22
Observe the fowls closely	March 14	22
Advantages of exercise for fowls	March 14	22
Regarding promiscuous breeding	March 14	22
A new breed for the farmer	March 21	22
Regarding best breeds	March 28	22
The best layers	March 28	22
Selection for breeding stock	April 11	14
To build up an egg-laying strain	May 2	14
Cross-bred fowls	May 2	14
Marketing of male bird after hatching season	May 16	10
Get acquainted with mottled Anconas	May 23	11
Get rid of culs	May 30	11
Find cause for losing chicks	May 30	11
Culling season	June 13	11
Sell hens not needed for breeders	June 27	13
Sell surplus roosters	June 27	13
Selecting hens for breeders	June 27	13
Time of year to buy good breeding stock	July 4	12
Stock at bargain prices	July 4	12
"Swat the rooster" Why?	July 11	14
Organizations to promote pure bred fowls	July 11	14
Keep your early pullets	Sept. 5	19
Cull your flock	Oct. 10	14
Discard profitless hens	Oct. 10	14
Cannot get pure-bred chickens for a song	Oct. 17	10
Profitable age for hens	Oct. 31	10
Early layers	Nov. 7	12
Why winter laying	Nov. 7	12
Get trio of good birds	Nov. 14	11
Now is the time to get new males	Dec. 5	10
Eliminate robber hens	Dec. 12	16
Must have some well defined ideas	Dec. 26	12

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Chicken Yard and House.		
Keep the grit box filled	Jan.	3. 16
Keep clean litter for hens	Jan.	10. 14
Paint roosts with hot tallow	Jan.	10. 14
Poultry houses and fixtures	Jan.	17. 16
Scratching shed for poultry	Feb.	7. 25
Coop for hen with chicks	Feb.	7. 29
Covered run for chickens	Feb.	7. 29
Inferior fittings for hen house	Feb.	7. 32
Keep warm place for chicks at night	Feb.	28. 20
Keep coop warm for early chicks	Feb.	28. 20
How to make coops cat and rat-proof	Feb.	28. 20
Keep chicken house clean	April	4. 24
Keep poultry yard pure and clean	April	4. 24
Provide place for hens to dust themselves	April	11. 22
Give chicks plenty of room	April	18. 16
About brooders	May	2. 14
Keep brood coops clean	May	9. 12
Whitewash the houses and coops	May	16. 10
Brood coops should be rat-proof	June	6. 12
Clean nest boxes	Aug.	1. 14
How to care for the chicken yard	Aug.	1. 14
Induce fowls to change roosting place	Oct.	24. 10
Time to clean poultry houses	Oct.	24. 10
Keep chickens comfortably housed	Oct.	24. 10
Dust bath is a necessity	Nov.	21. 11
Do not overcrowd the fowls	Nov.	21. 11
Diseases and Remedies.		
To cure feather and egg eating	Jan.	3. 16
Crop-bound	Jan.	3. 16
Keep fowls healthy	Jan.	17. 16
To remedy frozen combs	Jan.	24. 16
How to prevent roup	Feb.	14. 20
Cold and remedy	Feb.	21. 20
White diarrhea in chicks	Feb.	21. 23
To prevent white diarrhea	March	7. 23
Causes of leg weakness	March	28. 22
White diarrhea in chicks	April	4. 26
To get rid of lice	April	11. 22
A new remedy for lice	April	18. 16
Chicken pox	May	16. 7
Liver disease and indigestion	May	16. 11
Lice frequent cause for ailments	June	6. 12
Best preventive for mites	June	20. 11
When comb turns dark	Sept.	19. 12
Cause of roup	Sept.	19. 12
Chicken pox	Oct.	31. 10
For fleas and mites	Nov.	7. 14
Ducks.		
Indian Runner ducks profitable	Jan.	17. 16
Wild ducks and geese blow in from sea	Jan.	24. 16
Why I raise White Indian Runner ducks	Feb.	7. 4
How to raise Indian Runner Ducks	Feb.	7. 6
Indian Runner ducks profitable	Feb.	7. 17
Pekin ducks	Feb.	14. 20
Feed and care of Indian Runner ducks	March	7. 23
Duck raising	March	14. 22
Why some Runner ducks do not lay	March	21. 23
Proper feed for ducks	May	2. 14
Duck raising	May	23. 12
Ducks cannot walk	July	18. 14
Ducks need water for bathing	Aug.	22. 11
Runner duck breeding	Nov.	21. 11
Indian Runner duck record	Dec.	12. 16
Egg Records and Laying Contests.		
Egg laying contest, Result of	Jan.	3. 16
Egg contest at Storrs, Conn.	Jan.	3. 16
Record of White Leghorn hens	Jan.	3. 16
Some Chinese hens lay large eggs	Jan.	24. 16
Importance of time of year when eggs are laid	Jan.	24. 16
Care of the egg on the farm	Jan.	31. 14
Shipment of eggs from Austria to New York	Jan.	31. 14
Increased egg profit	Feb.	7. 5
A world's egg laying contest	Feb.	7. 22
High prices of eggs in November	Feb.	7. 29
300-Egg hen has arrived	Feb.	7. 29
Hens too fat to lay	Feb.	7. 29
Weather regulates price of eggs	Feb.	21. 20
Seventy-six eggs in January	Feb.	21. 20
Packing eggs for hatching	Feb.	21. 20
Regarding the egg famine	Feb.	21. 20
Marketing eggs	Feb.	21. 23
Cause for infertile eggs	Feb.	28. 29
Select dark place for hens' nests	March	7. 22
Use of nest eggs	March	7. 22
Eggs for the farmer	March	7. 22
Cause of infertile eggs	March	14. 22
Get best eggs for hatching	March	14. 22
National egg laying contest	March	14. 22
Getting winter eggs	March	14. 22
Egg production from large flocks vs. small flocks	March	21. 22
Eggs not hatching well	March	28. 22
Necessity of clean, wholesome food for first-class eggs	March	28. 22
Importation of eggs from China	April	11. 18
Abnormal eggs for hatching purposes	April	11. 22
Gather eggs often	April	18. 16
Shipping eggs by parcel post	April	25. 17
My success in shipping eggs	April	25. 17
Value of eggs as food	May	16. 11
Egg selling record for Lyon County	May	30. 11
Has size to do with egg production?	June	6. 12
World egg-laying contest at Panama Exposition	June	13. 11
Egg-laying contest in Missouri	June	13. 11
Fresh eggs for family use	June	20. 11
Operate an egg car	June	20. 12
Contest report for May	July	4. 12
Improving quality of eggs	July	4. 12
Facts about egg formation	July	11. 14
Artificial fertilization	July	18. 14
Co-operative egg association at Oklahoma	Aug.	1. 14
Use egg candler	Aug.	8. 12
Double-yolked eggs	Aug.	8. 12
Egg "pickling" methods	Aug.	15. 4
Better egg prices than ever	Aug.	22. 5
Candling eggs on farm	Aug.	22. 11
Summer egg loss preventable	Sept.	12. 12
Market eggs during the winter	Oct.	10. 14
Find suitable market for eggs	Oct.	24. 10
Why bad eggs?	Oct.	24. 10
To pack away eggs	Nov.	7. 12
How to raise the standard of egg production	Nov.	21. 11
Contest records broken	Dec.	5. 10
Ducks break egg record	Dec.	12. 16
Report of National Egg-Laying contest	Dec.	26. 12
Lessons learned from contest	Dec.	26. 12
Feeds and Feeding.		
Clover or alfalfa for fowls	Jan.	3. 16
Advantage of dry mash over the wet mash	Jan.	3. 16
Give chickens plenty of water	Jan.	10. 14
Put sprouts for chickens	Jan.	10. 14
Warm breakfast for hens	Jan.	10. 14
Variety of feed to produce eggs	Jan.	17. 16
About feeding sprouted oats	Jan.	24. 16
High prices of feed	Jan.	24. 16
Important facts about poultry food	Jan.	24. 16
How to supply lime	Jan.	31. 14
Don't forget the meat ration	Jan.	31. 14
Importance of balanced ration	Feb.	7. 17
Balanced ration for hens	Feb.	7. 25
Untreated hulls in ration	Feb.	7. 25
Follow hen's method of feeding chicks	Feb.	7. 25
Four milk for hens	Feb.	7. 29
Conjunctive fattening establishment in connection with creamery	Feb.	7. 29
How to make hens lay	Feb.	7. 31
Good scraps vs. red pepper	Feb.	14. 20
Laying hens require lots of feed	Feb.	14. 20

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Barrd Plymouth Rock club	Feb. 14	20	Some of the things worth noting in making school plans	July 25	5	Seeding sweet clover in rye	Dec. 12	8
Kentucky and Tennessee rooster day	May 2	14	Concerning business courses in high schools	Aug. 1	3	Why he prefers to raise sweet clover in rows	Dec. 19	5
Push young stock for fair	May 16	10	Actual farm experience required	Oct. 24	3	Clover varieties described	Dec. 19	5
Convention of American Poultry Association	July 4	12	Library in every Kansas school-house	Nov. 7	3	TILLAGE METHODS	Jan. 31	4
Take your chickens to the fair	Aug. 1	14	Movable agricultural schools	Nov. 7	6	Cultivation conserves moisture	April 4	12
Send your fowls to the Topeka Fair	Aug. 22	11	Study of agriculture in rural schools	Nov. 21	3	Breaking sod in Gray County	April 11	11
Panama-Pacific Exposition premium list ready	Sept. 5	19	Provide stables for pupils' horses	Nov. 21	3	Summer tillage—a successful test	May 23	5
Poultry at the Topeka Fair	Oct. 3	16	Now neighborhood schools	Nov. 28	2	Early disking and plowing	June 13	5
Kansas State Poultry Federation show at Topeka Auditorium	Nov. 21	11	Big idea in farmers' schools	Dec. 26	2	Use of summer fallow	July 18	2
Some important meetings	Nov. 28	5	School children make a social survey of district	Dec. 26	3	Plowing to save moisture	Aug. 22	5
Attend winter poultry show	Nov. 28	11	SEEDS			Believes in deep plowing	Oct. 24	7
Birds must be prepared for show	Dec. 5	10	Cane and milo seed wanted	Jan. 3	4	Fall plowing for insect control	Oct. 24	7
Entry for Central Kansas Poultry Ass'n show close	Dec. 12	16	Seeding rye and oats in corn	Jan. 3	8	Fall plowing must not be overlooked	Nov. 4	3
Kansas State Poultry Show	Dec. 12	16	Kafir seed for 1914 crop	Jan. 17	10	Deep plowing big help to crops	Nov. 21	4
State Fair Association pays premiums	Dec. 26	12	Seed for spring planting	Jan. 31	2	Fall handling of cane land	Nov. 21	4
Kansas State Poultry Federation show at Auditorium	Dec. 26	12	Demand for spring seed	Jan. 31	3	Early plowing and plant food	Nov. 28	6
Turkeys			Seed for sale in Montgomery county	Jan. 31	3	Fall plowing east and central	Nov. 28	7
Grasshopper fed turkeys	Jan. 17	16	1913 corn not good for seed	Jan. 31	8	Handling gumbo spots	Dec. 5	5
Pure-bred M. B. turkeys vs. fakes	Feb. 7	4	Importance of getting good seed	Feb. 7	16	Fall disking of sod	Dec. 5	6
Turkey drives in Texas	Feb. 7	29	Ohio Seed corn	Feb. 14	23	Deep plowing in Riley County	Dec. 26	7
Grasshopper plagues help turkey raisers	Feb. 14	20	Sweet clover seed from Kentucky	Feb. 21	3	TRACTORS		
Points in turkey culture	April 18	16	Care in the purchase of seeds	Feb. 28	10	General purpose farm tractor	March 14	16
Protect turkeys from storms	Sept. 19	12	Fat kernels make fat crops	Feb. 28	18	May be tractor for small farm	April 11	23
No turkeys at Topeka State Fair	Oct. 3	16	Seed testing pays	March 7	3	Tractor farming	July 4	3
RECIPIES			Purchase of alfalfa seed by outside buyers	March 14	11	TREES		
Shirred eggs in a noodle case	Jan. 10	17	Be sure to treat kafir seed	April 11	18	Starting catalpa trees	Jan. 3	5
Cheese Croquettes	Jan. 17	8	Seeds may be sent by parcel post	April 11	18	Hardy evergreens	Feb. 14	3
Caramel pie	Jan. 24	14	Germinate kafir seed	April 18	3	An evergreen wind-break	Feb. 21	4
Right way to boll ham	Jan. 24	14	To protect kafir seed from ants	April 25	3	Trees for Western Kansas	Feb. 28	4
Favorite South Carolina dish	Jan. 31	6	Protecting kafir seed from ants	May 9	5	Black and honey locusts	March 7	8
Hot water sponge cake	Jan. 31	6	Carbolic acid for milo and fetid	May 30	5	Evergreens	March 14	6
Hominy muffins	Jan. 31	15	Seed for next year's wheat crop	June 13	3	Rules for planting windbreaks	March 14	11
Good imitation of pistachio flavoring	Feb. 7	12	Better seed wheat	June 20	3	Planting Maple, Persimmon and Sassafras seed	March 21	12
Home-made soap	Feb. 21	8	Free seeds again	July 4	3	Fruit of locust trees	March 28	11
To roast a flank steak	Feb. 21	8	Seeds wanted for catch crop	July 11	5	Do not prune evergreens	April 11	3
Poor man's pudding	Feb. 21	8	Should test seed corn	July 11	5	Planting trees in Kansas	April 18	3
New way to prepare a meat loaf	Feb. 28	16	Poor seed again	Aug. 15	4	Care of young trees	April 25	19
Pleasing variety in the way of mashed potatoes	Feb. 28	16	Free examination of seed	Oct. 3	3	Shade trees for Reno county	Nov. 28	5
Stuffed onions	Feb. 28	16	Look for Johnson grass	Oct. 3	4	Why trees die in Reno county	Dec. 19	5
St. Patrick's cream	Feb. 28	16	Turkistan alfalfa seed high	Oct. 3	8	Trees for West Central Kansas	Dec. 19	5
Corn good food for men	March 7	16	Get seed before hard frost	Oct. 17	6	VETERINARY		
Boston brown bread	March 21	18	Look out for moldy seed	Oct. 24	9	Treatment for heaves	March 28	13
Miss Porter's honey taffy	March 21	18	No "pure" seed label in Kansas	Oct. 31	6	Ringworm on cattle	March 28	14
Odd little sponge cake	March 21	18	Marketing the seed of milo	Nov. 14	6	Splint and distemper treatment	April 4	14
French meat loaf	March 21	21	Seeds should be tested for purity	Nov. 21	6	Worm remedy for mules	April 11	6
Honey popcorn balls	March 28	20	Kansas pure seed primer	Dec. 5	2	Horses have worms	April 25	8
Honey gems	April 11	20	Treating seed of sweet clover	Dec. 19	3	What ails pigs?	April 25	11
Recipe for mustard	April 11	20	Farm crop seeds	Dec. 19	3	Cows sick on wheat pasture	May 2	5
Chili con carne	April 11	20	Kansas pure seed primer	Dec. 19	3	Scours in little pigs	May 2	8
Recipe for government white wash	April 18	8	Seeding lawns in the fall	Dec. 19	5	Prevention of navel ill	May 9	8
Buttermilk biscuit	May 9	10	SERUM			A remedy for bots	May 16	6
Fresh strawberry floating island	June 6	10	Anti-cholera serum	Feb. 28	3	Glanders vaccine unsatisfactory	May 23	8
Canning and preserving	June 6	10	State control of serum	May 23	3	To remove warts from cows	June 6	8
Pickled cherries	June 13	12	Proper place to inject serum	June 20	3	Cowpox treatment	June 13	2
Pea salad	June 13	12	The making of serum	Sept. 15	2	Mange in hogs	June 20	10
Preserved cherries	June 13	12	Serum manufacture	Sept. 15	2	Cattle bloat	June 20	9
Home-made lemon extract	June 13	12	Personality in serum making	Sept. 15	2	Large number to study veterinary science	Sept. 12	3
To preserve berries whole	June 13	12	Care in serum making	Sept. 15	2	WHEAT		
Strawberry jam	June 13	12	Selection of serum	Sept. 15	2	Wheat condition	Jan. 3	8
Cherry butter	June 13	12	Making serum in Wichita	Sept. 15	2	The yield of a single grain of wheat	Jan. 3	16
Berry muffins	June 27	12	Need for serum experts	Sept. 12	2	More money in sow than in wheat	Jan. 24	8
Fruit biscuits	June 27	12	Personality in serum making	Sept. 12	2	Wheat and cattle	Feb. 7	20
Plain water ice	July 11	12	Efficiency of serum	Nov. 14	3	Wheat reports good	Feb. 21	3
Pineapple water ice	July 11	12	Blackleg vaccine	Nov. 14	3	Readjustment of wheat farm	Feb. 28	4
Raspberry bombe glace	July 11	12	Avoid infected serum	Nov. 28	3	Making hay from wheat	April 18	8
Steamed raspberry dumplings	July 11	12	SILAGE			Wheat and soil fertility	April 18	9
Chicken with rice and peppers	July 18	12	Silage for sheep	Jan. 10	7	Can't afford wheat now	April 25	8
Apricots in jelly	July 18	12	Sheep as meat producing animal	Jan. 31	11	Wheat and flour tests	May 9	8
Banana sandwich	Aug. 1	12	Castrating spring lambs	March 28	15	Record breaking wheat crop	May 30	2
Cheese sandwich	Aug. 29	10	Care of sheep	May 16	6	Get ready for wheat harvest	May 30	2
Plum butter without cooking	Aug. 29	10	Regarding sheep raising	May 23	6	Conserve the wheat crop	May 30	8
Kafir muffins	Sept. 5	21	Dogs and mutton supply	July 11	4	Wheat outlook in general	June 6	3
Lemon sherbet	Sept. 19	10	New book on sheep feeding	July 11	4	Wheat costs 55 cents	June 6	6
Chocolate syrup	Sept. 19	10	What breed of sheep	July 11	4	Wheat vs. other crops	June 6	6
Canning peaches without sugar	Sept. 19	11	Decline in sheep raising	Aug. 8	10	Argues for early preparation	June 13	3
Sliced cucumber and onion pickle	Oct. 10	13	Farm flock pays	Sept. 5	14	Selling and sowing	June 13	3
Raisin sandwiches	Oct. 17	11	Opportunity to start in sheep	Sept. 5	14	Wheat acreage in Thomas Co.	June 13	3
Tomato sandwich	Nov. 7	15	Sheep on eighty-acre farm	Oct. 3	16	Effect produced on soil by wheat production	June 13	3
Banana sandwich	Nov. 14	15	Why not feed some lambs?	Oct. 3	12	Arrange ahead for wheat cut	June 13	3
Farm meat curing	Nov. 14	15	Karakules in Kansas	Oct. 17	6	Dollar wheat possibility	June 13	4
Turkey stuffing	Dec. 5	12	Sheep feeding trials at Kansas State Agricultural College	Oct. 24	3	Map showing annual wheat yield by counties	June 13	5
Economical table syrup	Dec. 12	15	Sheep pay on this farm	Oct. 31	2	Early disking and plowing	June 13	5
Apple marshmallow pie	Dec. 12	15	Sheep for the small farmer	Nov. 7	10	Metal bin for storing wheat	June 13	6
Fried parsnip	Dec. 19	11	A place for sheep on the farm	Nov. 14	3	Everybody talking wheat	June 13	6
Cider in roasting	Dec. 19	11	Sheep to test various silages	Nov. 14	3	Regarding threshing immediately after harvest	June 13	6
Hot potato salad	Dec. 19	11	Sheep cost nothing on this farm	Dec. 19	6	Regarding next year's crop	June 13	6
Scalloped onions	Dec. 19	11	RENTING LAND			Regarding talk about big wheat crop	June 13	7
Delicious sour cream pie	Dec. 26	11	Landlord and tenant	Jan. 3	8	Wheat money for live stock	June 13	10
Peanut butter candy	Dec. 26	11	Landlord and tenant again	Jan. 17	4	Day's work in harvest	June 20	2
Caramel rice pudding	Dec. 26	11	Renters having difficulty to secure farms	Feb. 21	3	Twenty-one Kansas wheat crops	June 20	7
ROADS			Secret of the landlord and tenant success	Feb. 21	11	Pointer on stacking wheat	June 20	14
Improve principal roads first	Jan. 17	2	Tenancy hurts sale products	April 25	8	Estimate on Kansas wheat crop	June 20	14
Save money on roads	Jan. 31	3	ROADS			Advantages of stack "sweating"	July 4	2
Spring best time to work roads	Feb. 14	11	Improve principal roads first	Jan. 17	2	Lookout for higher prices	July 4	2
Pointers on road work	Feb. 21	13	Save money on roads	Jan. 31	3	Stacking is storage	July 11	3
The log road drag	Feb. 21	21	Spring best time to work roads	Feb. 14	11	Hold the wheat	July 11	3
Farm good roads club	Feb. 21	21	Pointers on road work	Feb. 21	13	Yields of wheat and oats high	July 11	3
Road making by mail	March 14	9	The log road drag	Feb. 21	21	Reserve wheat seed	July 11	7
Road improvement in Kansas	April 11	3	Farm good roads club	Feb. 21	21	Hold wheat for better prices	July 18	6
Keep roads in repair	April 11	23	Road making by mail	March 14	9	Benefit of pasturing wheat	July 18	6
About permanent road work	May 30	9	Road improvement in Kansas	April 11	3	How to retain moisture	July 18	6
Good roads demonstration	July 4	12	Keep roads in repair	April 11	23	Prepare as large acreage as possible	July 18	7
Dragging dirt roads	July 11	7	About permanent road work	May 30	9	Insure your wheat fields	July 18	11
Road work that counts	Sept. 12	4	Good roads demonstration	July 4	12	Hold wheat for higher prices	July 25	3
Good roads improve social conditions	Dec. 12	2	Dragging dirt roads	July 11	7	Early preparation for wheat	July 25	3
Study in building	Dec. 12	2	Road work that counts	Sept. 12	4	No gain without effort	July 25	3
This and that for good roads	Dec. 12	3	Good roads improve social conditions	Dec. 12	2	To investigate the price of wheat	July 25	3
When and how of the drag	Dec. 12	4	Legumes benefit non-leguminous crops	Feb. 28	4	Wheat interest in the foreground	July 25	6
Build around the hills	Dec. 12	5	Use of legume crops in rotation	March 14	5	Will hold half or more	Aug. 1	3
Country preacher and country road	Dec. 12	5	Broad from stones	May 2	7	Early plowing of wheat	Aug. 1	3
Tractor better than horses	Dec. 12	12	Beans for Western Kansas	May 30	5	Fumigate wheat bins	Aug. 1	5
Get road making on business basis	Dec. 12	12	Rotation for Colorado plains	May 30	5	Wheat in pork production	Aug. 1	5
Culvert construction	Dec. 12	13	Cropping methods for West	Oct. 24	4	Land preparation for wheat	Aug. 8	2
Narrow and wide tires	Dec. 12	13	Rotation essential for all crops	Nov. 21	6	Failure to stack wheat causes loss	Aug. 8	3
Building dirt roads	Dec. 12	14	SCHOOLS			Do not pile wheat on ground	Aug. 8	3
Roads and land values	Dec. 12	17	New life for the old schoolroom	Jan. 3	18	Conditions which control wheat prices—indicate holding profitable	Aug. 8	5
Iron culvert convenient and durable	Dec. 12	18	Pies given to schools	Jan. 3	22	Balancing wheat ration	Aug. 8	7
Good roads bill	Dec. 26	3	Schools to the country	Jan. 17	3	Wheat for milk cows	Aug. 8	10
ROTATION CROP			Why teach farm facts?	Feb. 7	3	Preparing for wheat	Aug. 15	3
Legumes benefit non-leguminous crops	Feb. 28	4	Movable schools for women now	Feb. 21	21	Wheat farming in Northwest Kansas	Aug. 15	5
Use of legume crops in rotation	March 14	5	Poultry in high school	Feb. 28	21	High prices promised for wheat	Aug. 22	2
Broad from stones	May 2	7	Normal to be divorced from Emporia Normal	March 7	3	Observe fly free date	Aug. 22	3
Beans for Western Kansas	May 30	5	Agriculture in county high schools	March 14	3	Save the straw	Aug. 22	3
Rotation for Colorado plains	May 30	5	Ambitious but confident	March 14	11	Smut in wheat	Aug. 22	4
Cropping methods for West	Oct. 24	4	Regarding Kansas Wesleyan Business College	April 4	18	Big yields in Finney county	Aug. 22	5
Rotation essential for all crops	Nov. 21	6	Improving rural schools	May 23	5	Preparing the ground for wheat	Aug. 22	6
SCHOOLS			Have school boards overlooked this?	July 11	12	Early preparation advisable	Aug. 22	6
New life for the old schoolroom	Jan. 3	18	Special center activity	July 11	12	Is plowing better than disking	Aug. 22	7
Pies given to schools	Jan. 3	22	Used for the summer	July 18	3	How to get your seed wheat	Aug. 22	7
Schools to the country	Jan. 17	3	School for rural leaders a success	July 18	3	Save seed wheat	Aug. 22	7
Why teach farm facts?	Feb. 7	3				Prepare for 1915 wheat crop	Aug. 29	4
Movable schools for women now	Feb. 21	21				Preparing the seed bed	Aug. 29	7
Poultry in high school	Feb. 28	21				Sowing wheat in Decatur Co.	Aug. 29	7
Normal to be divorced from Emporia Normal	March 7	3				From an old friend	Aug. 29	7
Agriculture in county high schools	March 14	3				To farmer holding wheat	Sept. 5	3
Ambitious but confident	March 14	11				Sowing wheat for pasture	Sept. 5	10
Regarding Kansas Wesleyan Business College	April 4	18				What experiment station has done for wheat growing industry	Sept. 12	3
Improving rural schools	May 23	5				Weedy land for wheat	Sept. 12	4
Have school boards overlooked this?	July 11	12				Effect of manure on wheat crop	Sept. 12	7
Special center activity	July 11	12				Several wheat growing methods	Sept. 12	8
Used for the summer	July 18	3				Wheat market prospects	Sept. 12	8
School for rural leaders a success	July 18	3				Machine for treating seed wheat	Oct. 24	7
						Kansas wheat crop on hand	Oct. 31	3
						Spreading straw on wheat	Nov. 14	6
						Corn land for wheat	Nov. 14	6
						Kansas' 1914 wheat crop	Nov. 28	3
						No cause for alarm	Dec. 5	3
						Next year's wheat crop less	Dec. 19	3

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