

YOU SHOULD HAVE A COPY OF TOM BORMAN'S BOOK "SORGHUMS: SURE MONEY CROPS"

YOU cannot afford to be without Tom Borman's great book—"Sorghums: Sure Money Crops." It is being sold direct to the public by THE KANSAS FARMER COMPANY. This book is designed to induce greater appreciation of the grain sorghums to the end that a greater dependence may be placed thereon for grain and forage. For the sorghum belt farmers it is intended to reveal:

- 1—Why he should grow more sorghums.
- 2—How he should maintain and develop their usefulness.
- 3—How to make the most money from them.

Tom Borman says:

I confidently believe that a careful reading of what is printed in my book and observance of the recommendations presented, will aid in the development of a more prosperous agriculture throughout the sorghum belt.

READ WHAT THESE MEN HAVE TO SAY

From H. M. Cottrell, Agricultural Commissioner, Rock Island Lines: "I have read, three times, your book, 'Sorghums: Sure Money Crops.' It is one of the most fascinating books I have ever read, and thoroughly practical. You have created a book that will be of permanent value to the farmers of the Southwest. It is so strong and so practical that I am certain that it will prove to be an important factor in helping the majority of the farmers of the Great Southwest to make more money, raise sure feed crops every year, and to establish more comfortable homes and better communities. You have always done good work. This book is the best work you have ever done. You should be proud of it."

From J. C. Mohler, Secretary of Agriculture: "Mr. Borman's book on Sorghums is by far the best volume on the subject ever written. This book may be regarded as a guide for the farmers in the sorghum belt. The book is a valuable contribution to modern agricultural literature, and is worth its weight in gold to any farmer in the great sorghum country."

From Charles M. Sawyer, Bank Commissioner, State of Kansas: "I have just finished reading your book, 'Sorghums: Sure Money Crops,' and want to congratulate you upon the comprehensive and entertaining way you have covered the subject. Your book should be read by every farmer and business man in the sorghum belt territory, for if the information it contains was utilized it would yield millions of dollars of increased profit to the farmers of that section."

From A. L. Haecker, the well-known Nebraska dairyman: "I have your good book on Sorghums and am much pleased with it. It is a storehouse of useful information on the subject of growing sorghums and making proper use of them. I am sure this book will be well received, and that you will have a good sale for it."

Mr. Borman's book is printed on a fine quality of book paper, is full of pictures and is neatly and substantially cloth bound, and the price will be \$1.25 per copy. To KANSAS FARMER subscribers who renew their subscriptions, or for new subscribers, a copy of this book will be sent with a year's subscription to KANSAS FARMER, for only \$1.50, postpaid. The first orders to be received will be filled first. To order, fill out the coupon, sending your remittance by personal check, draft or money order. Make all remittances and address all letters to KANSAS FARMER, 625 Jackson Street, Topeka, Kansas.

KANSAS FARMER, TOPEKA

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

NAME.....
ADDRESS.....

THE book is in great demand and you should have your copy before the first edition runs out. Mr. Borman is one of the best authorities on grain sorghums in the country, and this book is the last word on this subject.

Be among the first to profit by this remarkable book, written by a man who has achieved a reputation of being one of the foremost authorities on farming and kindred subjects in the country and who knows how to write in a clear, concise, straightforward manner. In this remarkable new book, Tom Borman, a well-known farmer of Kansas, whose word is final on farming in all its phases, says that with a larger acreage of sorghums for grain, feeding assurance can be greatly increased. In fact, that with the use of sorghums, there need be no feed shortage, and that sorghums and live stock, with a sane acreage of wheat, will make a farmer more permanently prosperous.

Every farmer should own this complete informative book, endorsed and recommended by the foremost farming experts throughout the United States.

Mr. Borman's new book is a work of great significance to every farmer. No farmer can afford to be without this book. It should be read and re-read by every farmer in this country.

SORGHUMS: SURE MONEY CROPS

By **TOM BORMAN**
Editor of **Kansas Farmer**

is the concrete experience of a man and of hundreds of farmers who have made a lifetime study of this subject, and is now offered to you in book form at a nominal price. When you get this book, you will have, according to authorities, the greatest book on grain sorghums ever written. It is the world's authority on the subject and the tremendous scope of the book is indicated at a glance over the following chapter heads:

- 1—The Land of Grain Sorghums.
- 2—Development of the Sorghum Belt.
- 3—Grain Sorghums in General.
- 4—Grain Sorghum Yields and Values.
- 5—Sorghum Area Defined.
- 6—Grain Sorghum Farming.
- 7—Better Grain Sorghum Crops.
- 8—Feeding Grain Sorghums.

Look over this list and note how many ways Mr. Borman has touched your own work, then sit down and fill out the coupon in the lower left hand corner of this page. Be among the first to get this monumental work. Send for this book now. It is essential that you place your order early, because we have no way of anticipating the demand. The books are going fast, and if you send in your order at once you will get in on the first edition. Do not wait until the supply is exhausted.

KANSAS FARMER CO., Topeka

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KANSAS FARMER

For the improvement  of the Farm and Home

Volume 52, Number 1. TOPEKA, KANSAS, JANUARY 3, 1914. Established 1863. \$1 a Year

HE looked forth a bright spring day to see an endless row of his little brothers in their bright new uniforms of green, and felt that it was good to be alive. Soon he was tall enough to see that he was one of a vast army that in the long bright days became tall and strong, and the prairie wind whispered brave tales of grandfather Sorghum and uncle Kafir from a land far away, of blazing days and scorching soil.

All too soon these legends merged into reality, but our brave little soldier of sunshine folded his uniform over his stout little heart and he and his comrades stood at their posts facing the wrath of the sun-god with strength and fortitude.

It was a long and weary time, but finally the clouds gathered and the thirsty earth drank greedily of the life giving water. Soon the waving plumes of the little soldiers became ripe heads of Milo, and the stirring roll of their drums of victory and the hum of their requiem was the voice of busy machines beside a monster silo, for them a Mausoleum of honor, and for the farmer a cornicopia of plenty.

This was the victory of the three cousins, Milo, Kafir and Sorghum the three little soldiers of sunshine.

—C. D. Yetter



The Bivouac of the "Little Soldiers"

GENERAL FARM INQUIRIES

Something For Every Farm—Overflow Items From Other Departments

OUR subscriber, W. I. M., of Sumner County, writes us as follows regarding burning winter quarters of the chinch bug: "I notice in the farm papers and literature from the Kansas Agricultural College items urging the farmers to burn the roadsides, and the advice is good, but in Sumner County this time it would be just as well to tell them to burn the wheat fields off, for the roads are as green as ordinarily in June and couldn't possibly be burned—at least not now."

This is an unusual condition, but the green grass will be frozen by the first real winter weather. The chinch bugs are there, and at the earliest opportunity their winter shelter should be destroyed by burning. It requires exposure to winter weather without proper shelter to effectively destroy the bugs.

Fattening Mules For Market.

Our subscriber, C. F. of Rooks County, writes for information as to the best feeds to use in fattening a span of four-year-old mules for market. It is his purpose to sell these mules the latter part of February. He has neither alfalfa nor silage. Wheat apparently is the grain most conveniently available. Wheat, while containing fully as much nutrient material as corn, is not relished by animals as well and it would be better to combine it with corn. Equal parts of ground corn and wheat mixed with bran, using one part of bran to three parts of the corn and wheat mixture, gives a very satisfactory grain ration. Since the roughage will undoubtedly be of a dry, unpalatable character, the use of a small quantity of oil meal in the ration would be of great advantage in toning up the digestive system and placing a good finish on the animals the latter end of the feeding period. One-half pound daily per mule, of the linseed oil meal might be added to the suggestive grain ration with profit. The mules should be given practically all the grain they will eat. Where large numbers of mules are fed for market it is always customary to run them in a large lot with open shed or barn for shelter.

This correspondent makes the suggestion to us that the printing of the market report in KANSAS FARMER would add to its value.

This service is not given in KANSAS FARMER for the reason that the reports of the markets would be at least a week old before they would reach the subscriber. It would seem that such service would not be of sufficient value to warrant the use of the space required. The attention of our correspondent is called to the "Trend of Markets" which is given each week on page two.

Re-seeding Edge of Alfalfa Field.

Our subscriber, C. C. of Norton County, writes us for advice regarding the handling of a field of alfalfa. This piece of ground has been in alfalfa for 20 years and has been pastured for the past two years. The outside of the field is badly taken with wild grass and some Russian thistles. Our subscriber inquires whether it would be possible to disk some or all of it and sow sweet clover and get good results, his purpose being to pasture the field with hogs. This is first class bottom land and has grown good alfalfa.

It is our opinion that where alfalfa can be grown successfully there is little reason for trying sweet clover. The sweet clover does not start much earlier if any, than alfalfa and is not relished by animals as well as the alfalfa. It is not a perennial plant and for that reason must be re-seeded. As a rule where sweet clover grows by the way-side and is not prevented from going to seed it re-seeds itself.

It would be our advice to our subscriber to prepare as good a seed bed as possible in the spring and sow alfalfa on the edges of the field where the alfalfa is now killed out. With the large amount of moisture which has fallen this fall the soil should have a good reserve to start the crop in the spring, providing proper methods are employed as early as possible to prevent losses of moisture.

Regarding the time of sowing in the spring, many have advised against sowing alfalfa until all danger of frost is past. It has been our observation, and likewise of many successful alfalfa men, that this danger of frost to spring-seeded alfalfa has been over estimated. The greatest danger to spring-seeded alfalfa is the choking out with weeds which

will start in the spring. Early seeding will give the alfalfa plant a chance to get started ahead of many of the weeds and this advantage is of sufficient importance to offset the possible danger of a severe frost destroying the young and tender plants.

It is difficult to advise as to the number of shoats which may be turned on this 10-acre field of alfalfa. The new-seeded alfalfa can be very seriously injured by over pasturing, and if a good stand is secured it would certainly be unwise to run a risk of losing it by over stocking with hogs. In pasturing alfalfa with hogs, the best results will usually come where the field is large enough so that the alfalfa grows ahead of the hogs and must be cut for hay. Under these conditions there is little danger of the hogs killing out any of the field. It might be possible to place as many as twenty hogs per acre on a well set field of alfalfa, but in our judgment it is very seldom desirable to pasture alfalfa so heavily for any considerable period of time.

Cane and Milo Seed Wanted.

One of our subscribers from Rooks County writes to inquire where he can purchase milo seed and black cane seed which has well matured. Seeds of the various spring crops will be extremely scarce the coming year and we have urged from time to time in our columns that any man having any of these seeds which will be available for spring seeding should by all means carefully preserve this seed. W. A. Boys who is District Demonstration Agent along the line of the Union Pacific railroad in western Kansas, has secured the names of a good many parties having seed for sale. Mr. Boys has his headquarters at Hays and we would suggest that all those desiring seeds of various kinds should communicate with Mr. Boys. We

roughage is available. The grain ration supplied must contain a relative large amount of digestible protein. Cotton seed meal supplies this more cheaply at the prices quoted than the linseed meal, and where silage constitutes the roughage there would be no advantage in using the linseed meal in preference to the cotton seed meal. If corn and cob meal could be used, a grain ration consisting of four parts of the corn and cob meal and two parts of the cotton seed meal would give very satisfactory results. If clear corn meal must be used it will be necessary to add some bran to the ration in order to make it less concentrated. Clear corn meal and cotton seed meal make a very concentrated ration. We would suggest the use of a mixture containing four parts of corn meal, two parts of cotton seed meal and one part bran. The cows should be given all the silage they will consume and in addition, grain at the rate of about one pound of the grain to each four pounds of milk they are producing.

Bran or Cotton Seed Cake For Milk Cows.

D. R., one of our readers in Greenwood County, writes to inquire which is cheaper for milk cows, bran at \$1.30 per hundred weight or cotton seed cake at \$1.75 per hundred weight. If the cotton seed cake referred to is the prime cake it is probably guaranteed to contain 41 to 43 per cent crude protein. This is about two and one-half times as much crude protein as is contained in bran. From the standpoint of supplying protein, the cotton seed cake is the cheaper of the two.

For further advice on this subject we would refer our inquirer to the reply given to M. M., Franklin County. This subscriber also asks which is the cheaper feed for horses, corn at 80 cents or oats

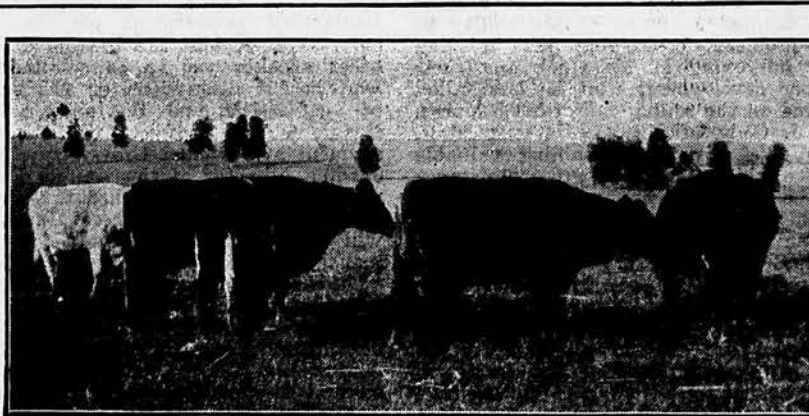
It is our advice to use the crop that will return, under favorable conditions, the greatest tonnage per acre. This undoubtedly will be either cane or kafir for this section. Various experiments that have been carried on to determine the relative value of the different crops for silage indicate that there is very little difference between them. Cane for silage purposes should be grown to full maturity and not placed in the silo until it has reached this stage. If harvested in an immature stage before the juices have ripened and become sweet an inferior silage will result.

For silage purposes it would undoubtedly be better to plant either one of these crops in rows and cultivate. When grown in cultivated rows they are much easier to harvest with the corn binder and run through the silage cutter, than when they are sown broadcast. It is also true that under average conditions the rowed cane or kafir is more sure of producing a good tonnage yield if properly cultivated than a crop of sowed kafir or cane. This is especially apparent in a year in which the rainfall is extremely short which was the case in the season through which we have just passed. It was a common observation that sowed forage crops this year were so badly burned up as to produce practically nothing. In the growing of a good crop of either cane or kafir for silage purposes it is important that as much moisture be stored in the ground during the winter as possible. This can be most effectively accomplished by fall or early winter listing. As soon as spring opens the preparation work and conservation of this moisture which has been stored in the ground must be given consideration. A vast amount of water may be lost to the crop by allowing the field to bake on top during the early spring months. By carefully paying attention to the preservation of the moisture during this season of the year and not planting the crop until the ground is thoroughly warm, maximum results may be expected in point of yields.

Our correspondent mentions the fact that he understands corn must be fed with silage. Silage is essentially a roughage feed, although the grain which it may contain is fully as valuable in the form of silage as if fed separately. For simply wintering mature cattle very little if any extra grain is necessary. As a rule this should consist of a small allowance of cotton seed cake or meal since this supplies a relatively large amount of digestible protein which is necessary to properly balance the silage ration. For fully feeding or finishing cattle for market considerable extra grain is of course necessary. The chief purpose of the silo is to make it possible to use to the fullest extent possible the rough feeds, such as kafir or cane. It was noted at the Hays Experiment Station last winter in the wintering of cows, that it required almost three times as many acres of kafir fodder to winter a given number of cattle as where kafir silage was used. In this case the other feeds used were identical, consisting of all the wheat straw the cattle would eat and one pound of cotton seed meal per cow daily.

Breeder Philanthropist.

We had called to our attention recently that a breeder of pure-bred cattle in Montgomery County, was making it a business to help get rid of the scrub and grade bulls in the county. It is the practice of this breeder to buy every one of this class of bulls that is offered for sale, paying a little more than they were expected to bring on the market, and then shipping them, in this way making it impossible for these animals to be retained in the county and used for breeding purposes. There might perhaps have been some business in his methods as well as philanthropy since the elimination of the supply of grade and scrub bulls would make it more necessary for those in the need of breeding animals to purchase pure-bred bulls. In this way this breeder is tending to widen his market at home for pure-bred bulls. This species of philanthropy might well be encouraged. Every effort possible should be made to eliminate the use of scrub bulls from the farms of the state. If every herd of cattle in Montgomery County could be headed by high class, pure-bred sires the results in the improvement of the quality of cattle produced could hardly be estimated.



SCENE ON FARM OF J. H. WALKER, LATHROP, MO., OLD-TIME SHORT-HORN BREEDER.—HIGH MILK PRODUCTION HAS ALWAYS BEEN REQUIRED.—BEEF MAIN BUSINESS, BUT \$1,350 BUTTER SOLD ONE YEAR.

would also suggest that those who have carefully saved good seed of the various crops, report to Mr. Boys. Co-operative effort of this kind would be a great benefit to many in the western part of the state the coming year.

Our correspondent who desires to secure the milo and cane seed asks regarding the use of cane as a hog pasture next summer. This crop can be used very successfully as a hog pasture during the summer season. It will not produce a very early pasture since cane does not start well until the soil becomes thoroughly warm. If very early pasture is desired it will be necessary to sow cereal such as oats or barley and use the cane later in the season. Two acres of pasture should be enough for the six O. I. C. brood sows which our correspondent has. It will be better to have this pasture divided into two parts so that the hogs can be moved from one to the other while the crop is getting a start again.

Ration For Milk Cows.

M. M., one of our subscribers in Franklin County, writes us for advice as to how to produce the most milk in the cheapest manner possible. Good silage without any grain is all the roughage he has available. Corn is worth 75 cents per bushel, prime cotton seed meal \$32 per ton, linseed oil meal \$32 per ton, bran \$22 per ton. The dairyman who does not have alfalfa or clover hay to go with his silage ration is greatly handicapped. With these two roughages proper feeding of the cows is much simpler than where no legume

at 45 cents. At the prices quoted these two grains cost about the same per pound. A pound of corn supplies about a third more actual energy or heat than a pound of oats. Oats when used alone furnishes a better balanced ration than corn and has always been regarded with great favor as a horse ration. Oats invariably are too high in price to be used economically as a sole grain ration for horses and even with corn at its present high price, a combination ration in which corn constitutes the greater part of the grain ration would be cheaper than the oats alone.

In the experiments conducted at Ft. Riley, a full report of which is given in the Kansas Experiment Station bulletin number 186, entitled "Feeding Work Horses," it was found that the most satisfactory and the most economical ration was one consisting of alfalfa hay, corn and oats. For a work horse of 1,150 pounds weight, the ration used consisted of 10 pounds of alfalfa daily, 8 pounds of corn and 2 pounds of oats. Our correspondent should by all means secure a copy of this bulletin and make a careful study of the results reported in the feeding of various rations to work horses.

Cane and Kafir For Silage.

An inquiry comes to us from C. G. M. of Osborne County, as to the best crop for silage in that part of the state. This subscriber has noted some comment on the use of cane for silage and having a silo and desiring to feed cattle next year, wishes information in advance as to the best crop.

KANSAS APPLE GROWING

What Doniphan County Has Done With Apples—By J. H. Merrill

THE above subject was selected because it seemed to represent a typical history of the fruit growing business. This industry in Kansas is comparatively young, yet it has passed through all the stages of apple growing.

THREE ORCHARDING PERIODS.

The history of orcharding in this county may be divided into three periods. The first period is that in which, because of the newness of the country, there were no orchard pests; the second period that in which these pests appeared but nothing was done to control them; and the third period, that in which efforts at control were made.

During the first period there were no large commercial orchards, yet nearly every farmer had a few apple trees which produced enough for his use. The next step came when one or two men, more venturesome than their neighbors, set out large orchards. The owners of these orchards were well paid for their investment. Their successes stimulated others and many large orchards were planted. During the first period, owing to the absence of orchard pests, good fruit was raised. Orchardling then was simply a question of planting out the trees and, in due course of time, harvesting the crop. If the yield was heavy it was looked upon as pure gain, while if there was a crop failure, no feeling of loss was experienced, as no expense had been incurred in handling the orchard. Even though good apples could be grown, the orchard was at first considered distinctly a side issue.

The largely increased area of orchard planting was one of the direct causes in bringing about the second or pest period. Hitherto, when the orchards were few and isolated, there was but little opportunity for pests to spread from one orchard to another, but as the size and number of orchards increased, the opportunity for spreading was made possible. As the orchards grew older, the pests within it, which at first were so few as to cause no apparent trouble, began to multiply and increased to such an extent that the damage they caused annually became disastrous to fruit growing. Some of these pests were not even in this country during the first period, but have since become introduced, the San Jose scale being an example of this kind.

While the pests were gaining their foothold the public was becoming educated in the matter of selecting fruit. Inferior apples could no longer compete in the market with the high-class fruit raised in those parts of the country which specialized on apples.

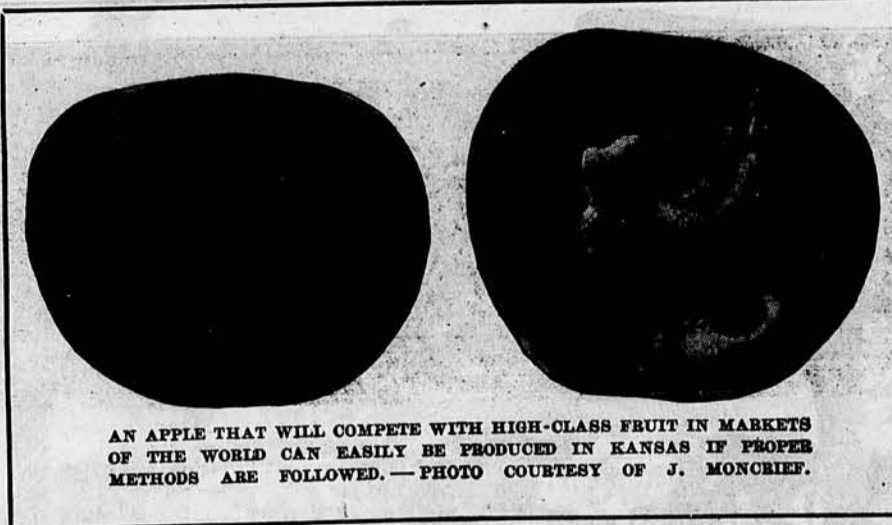
Each succeeding spring would find the trees in full bloom, but a very small percentage of the apples ever reached maturity, and the result was that one crop failure followed another with discouraging regularity. It finally became evident that the land now in orchards could be more profitably devoted to raising other crops, consequently hundreds of acres of orchard in this country were cut out. In making a land sale an orchard was considered an incumbrance and the cost of its removal was often deducted from the selling price.

FIGHTING ORCHARD PESTS.

The third period commenced at a rather recent date. The Department of Entomology of the Kansas Agricultural College first began work in Doniphan County upon the discovery of San Jose scale at Wathena.

While there is in Kansas a state law making spraying for scale compulsory, better results can be obtained by awakening an interest in orcharding in general. This department has had this object in view in its work in Doniphan County. The crusade, as it might well be called, to arouse an interest in good orcharding, has not always been an easy or a pleasant one. At first it met with a stone wall of skepticism, but finally a few orchardists were persuaded to practice modern methods. Their results were most satisfactory and they became thoroughly convinced of the value and necessity of spraying. These few were followed by many, until now there is hardly a person in that county who does not believe in spraying.

The man who sprayed his orchard raised better apples than his neighbor who did not spray, but even he realized that spraying was only one of the many problems which concern orcharding. The next natural step was pruning. These old orchards had seldom, if ever, been



AN APPLE THAT WILL COMPETE WITH HIGH-CLASS FRUIT IN MARKETS OF THE WORLD CAN EASILY BE PRODUCED IN KANSAS IF PROPER METHODS ARE FOLLOWED.—PHOTO COURTESY OF J. MONCRIEF.

pruned. In fact, pruning was considered by many as almost a heresy. After pruning, other orchard problems were taken up and dealt with as live issues. During the winter of 1912 the Doniphan County Horticultural Society was organized for the purpose of bringing the growers together that they might discuss the present as well as future problems involved in the growing of better fruit.

Thus it will be seen that the orchard which was at first considered a side issue, then later as an incumbrance, has finally come to be the best paying acre on the farm.

ORCHARD SUCCESSES.

The summer of 1913, as everyone knows, has been a hard one on all living things, but it had its value in that it demonstrated very clearly the advantages of modern methods. Those who did not spray their orchards had no apples at all, while those who sprayed made good money.

The facts and figures as to the results secured in some of these orchards for 1913 are given below. Not all of those who were successful are included, because the list would be too long. The year 1912 was a big apple year, Doniphan County shipping 202,240 barrels of apples, consequently a small crop was expected this year. It is for this reason that the results of 1913 are the more remarkable.

George T. Groh is one of the pioneers of modern orcharding in Wathena. Together with his uncle, Adam Groh, he purchased a power sprayer in the spring of 1912. A severe hailstorm badly damaged his apples, yet the quality of those remaining was so good that he received \$1,670 for the crop from 550 trees. His best previous yield had been 750 bushels of bulk apples. In 1912 he had 4,200 bushels of sound fruit and 2,000 bushels of bulk. In 1913 he received \$3,386.11, which would make \$6.09 per tree, or \$300.45 an acre.

Adam Groh received \$2,067 from 450 trees, or \$229.66 per acre.

George Groh leased two acres of orchard from another uncle, agreeing to spray it for one-half of the crop. He paid his uncle \$218.31 as his share of the crop. This would mean \$109.16 per acre for the lease.

P. A. Pettis of Wathena received \$88 for his apples in 1911. In 1912 he had a large crop which he sold as bulk for \$1,000. In 1913 he purchased a spraying outfit, but secured it too late to apply the first spray and later was prevented from putting on the fourth, yet

he received \$700 for his crop, which he himself says is just about \$700 more than he would have had if he had not sprayed. Had he been able to follow the complete schedule, he no doubt would have made considerable more money than he did.

W. D. McClellan of Blair has 720 trees. In 1910 they yielded about ten barrels. In 1911 there were about 1,100 barrels of bulk, and rather poor bulk at that. This crop sold for \$1,060. In 1912 he had 75 barrels, which brought him in \$36.30. In the spring of 1913 he bought a power sprayer and sprayed his orchard, with the result that he received for this year's crop \$2,900—\$4.03 per tree.

Frank Kotsch of Troy has been spraying his 25-acre orchard for three seasons. Last year his apples brought \$8,070, and this year he received a little over \$3,000, making a high average yield per acre for the past two seasons.

Lawson Mann of Troy is another man who commenced spraying this year. In 1911 there were but few apples in his orchard. In 1912 he received \$408. In 1913 he received \$1,250. This past season is the first time that Mr. Mann ever had apples that were better than bulk.

F. A. Kinzey of Troy did not get anything from his orchard in 1911, but had a bumper crop in 1912 which he sold for \$1,265. In 1913 he began spraying, and this fall sold \$3,000 worth of apples. The story of the orchard belonging to G. Foster Kent of Troy is an interesting one. This orchard produced in 1910 800 barrels of bulk apples, which was the best crop it had ever borne. In 1911, although the trees bloomed well, only about \$80 worth of fruit matured. In 1912 it was sprayed for the first time and produced 4,600 barrels, which marketed for about \$6,000. In 1913 Mr. Kent received for his Jonathans \$1,119.40, Ben Davis \$4,175, total \$5,294.40.

In 1912 Mr. Bauer of Wathena bought the apples from both the Drosselmeir and the Groh orchards. He paid the Grohs \$3,700 for their apples and the Drosselmeirs \$275.80. He was so impressed with the value of spraying that he leased the Drosselmeir orchard for five years. He sprayed it this summer and received ten times as much from his crop as he paid for last year's yield.

ORCHARDIST NOW EDUCATED.

In the first period good apples were raised; in the second, although the trees bloomed heavily enough, the orchard pests prevented good yields; in the third period apples were again produced in paying quantities. During all three of

these periods nature had done its share of the work, and all that it asked was for man to do his.

The orchard pests have proven themselves to be a blessing rather than a curse. As long as one could plant the orchard and reap the harvest, the idea never occurred to him that his orchard needed any care whatever, but when the presence of the pests forced him to purchase spraying outfits and spray materials, then he began to think about making that orchard return all the money possible to him. A well-pruned tree will not use up as much spray material, as the dead limbs will not be there to catch unnecessary spray. When the orchardist came to prune his trees he noticed for the first time the presence of canker, and set about remedying this. It was also noticed that some trees were not making the growth that others were. Upon investigation the reasons for this condition are discovered and the poorly nourished trees properly fed.

These are but a few instances of the good that orchard pests have done for fruit growers. They made the fruit grower acquainted with his own orchard and taught him to consider its possibilities as a paying proposition and to realize that it was something else beside a mere collection of trees.

Starting Catalpa Trees.

We have from L. T. B., one of our readers from Reno County, an inquiry regarding the planting of catalpa trees. This subscriber wants to know how to handle the seed and also the best time to plant. The hardy catalpa or catalpa speciosa is the only catalpa that is worth planting. The greatest difficulty to overcome is the securing of trees which are known to be of this species. The seedlings of the catalpa species are very difficult to distinguish from each other. If nursery stock is purchased it is important that the standing of the nursery as to honesty and reliability be absolutely unquestionable.

Where it is possible to secure the seeds they should always be secured from trees that are known to be of the proper species. The seeds of the hardy catalpa seldom grow more than two or three in a cluster. The trunks of the trees are comparatively straight and the bark on the old trees is deeply furrowed and is never found peeling off in scales.

The most common undesirable catalpa species produces very numerous seed pods, from five to fifteen often being found in a cluster. The bark even on the stems of the older trees is thin and often falls off in large scales. It is deeply furrowed. The seeds themselves have various characteristic markings which makes it easy to distinguish them after a careful study has been made of these characteristics.

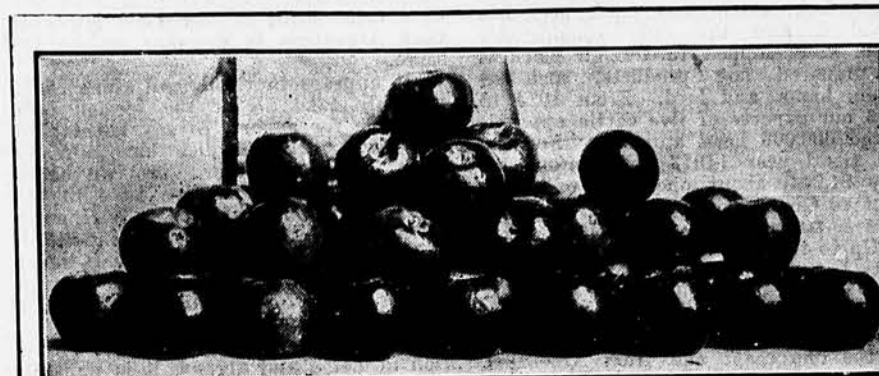
Our subscriber should by all means secure from the Kansas Experiment Station a copy of circular number 20, entitled "The Hardy Catalpa." In this will be found most complete information as to the handling of this valuable tree.

The seeds when planted under proper conditions in the nursery will make very vigorous growth. It is usually customary to cover them with at least two inches of soil in the nursery row. The seed should be planted at the rate of 35 to 40 per linear foot and the rows should be far enough apart to permit of horse cultivation. They should never be sown until the ground is thoroughly warm and all danger of frost is past.

Cuba's Banana Industry.

Cuba exports over two million five hundred thousand bunches of bananas a year to Boston, New York, Philadelphia and Baltimore—nearly the entire production—and thus far they have nearly all been grown on the north coast, not only in the rich valleys, but on the hills and in rock soil.

About 21,000 acres are under cultivation, 30 per cent of this area being owned by fruit companies and the remainder by small growers, who sell their fruit to the exporting houses. The bulb is set out in the soil only on the first planting. When the fruit is ready for cutting the tree is felled and one of the suckers from the same root is allowed to grow. In ten or twelve months this again produces, and so on from year to year. Nothing is done with the stalks except to allow them to rot on the ground and so fertilize the soil.



BUSHEL OF BLACK BEN DAVIS APPLES GROWN IN ORCHARD OF J. MONCRIEF AT WINFIELD, KANSAS.—ORCHARDISTS IN KANSAS CAN SECURE SUCH RESULTS THROUGH SCIENTIFIC HANDLING OF THEIR ORCHARDS.

THE MEAT SITUATION

Cattlemen Have Little to Fear From Foreign Competition in Beef Production



ALL THROUGH THE CORN BELT ARE FARMS HAVING LAND ESPECIALLY ADAPTED TO CATTLE-GROWING.—WHEN PRELIMINARY ADJUSTMENTS IN MANAGEMENT HAVE BEEN MADE THESE ACRES CAN BE USED PROFITABLY IN THE PRODUCTION OF BEEF AND THE WHOLE FARM WILL GROW RICHER AND MORE PRODUCTIVE.

THE outlook for meat production in the United States is far from being as serious a proposition as it might seem. While it is true that with the rapid settlement of the grazing ranges and the division of many natural pastures into cultivated farms combined with the increased value of corn on the market, the number of cattle in the country has been greatly reduced but this condition need not cause serious alarm. The country is well able to meet the present deficiencies which are due almost entirely to the important changes which are taking place in our systems of cattle raising. As soon as the necessary adjustments can be made and the business of raising and marketing meat producing animals on the farms can be profitably carried on, it will be found that our production of meat can easily be greatly increased.

The farmer in many instances cannot begin to produce beef at once at a profit. He must make a number of preliminary adjustments in his system of farm management before meat production can be made a source of assured profit in the more thickly settled farming districts of our country. The meat situation as it now exists has been the subject of several discussions by experts of the Department of Agriculture which have been published in some of the recent farmers' bulletins from that department. The following presentation of the situation as it now exists which is taken from one of the bulletins of the department, is by James M. Pickens, an expert in the Bureau of Animal Industry:

"The high cost of meat is a serious reality and it is now obvious that the rise in prices in recent years is the natural result of an actual shortage in production. This condition is reflected in the per capita consumption of meat in the United States, which is estimated to have fallen off 10 pounds in four years, or from 162 pounds in 1909 to 152 pounds in the fiscal year 1913. (These figures are exclusive of lard.) It is evident that the country is facing an era of short production of meat, and that some constructive means must be adopted if the American appetite for this class of food is to be supplied.

DECLINE IN BEEF PRODUCTION.

"The decline in beef production is especially marked. This is shown in three different ways—by the number of cattle on hand, the number received at market centers, and the number slaughtered. A decrease in market receipts and in the slaughter with a corresponding increase in the number remaining in the country would not be alarming; but when with a diminishing slaughter we are depleting our stock of cattle there can be no doubt of the gravity of the situation.

In the last six years the number of beef cattle in the country has apparently fallen off over 30 per cent, while the population has of course increased. According to estimates of the Bureau of

Statistics of the Department of Agriculture, the beef cattle in the country on January 1, 1907, numbered 51,566,000, and at the beginning of the present year the number was only 36,030,000. Meanwhile the number of dairy cows has remained practically stationary.

"The receipts of cattle at six of the principal live stock markets (Chicago, Kansas City, Omaha, St. Louis, St. Joseph, and Sioux City) for the first nine months of 1913, as reported in market journals, were very slightly in excess of the receipts for the same period of 1912, but in comparison with 1911 there was a decrease of nearly 10 per cent.

STATISTICS ON ANIMALS SLAUGHTERED.

"The slaughter of beef under government inspection, which covers more than half of the total slaughter of the country, shows a steady falling off since 1910, the total decline amounting to over 800,000 carcasses, equivalent to about 450 million pounds of dressed beef. Applying the ratio of federally inspected slaughter to total slaughter according to the census figures for 1909, this means a falling off of 1,419,000 cattle, approximately 780 million pounds of beef, in the entire slaughter of the country from 1910 to 1913. The table on this page shows the inspected slaughter in detail for the past four

ANIMALS SLAUGHTERED UNDER FEDERAL INSPECTION, FISCAL YEARS 1910-13.

Year ended June 30—	Cattle	Calves	Swine	Sheep	Goats
1910	7,962,189	2,295,099	27,656,021	11,149,937	115,811
1911	7,781,030	2,219,908	29,915,263	13,065,502	54,145
1912	7,532,005	2,242,929	34,965,378	14,208,724	63,983
1913	7,155,816	2,098,484	32,287,538	14,724,465	56,556

years. Sheep show a steady increase, as do hogs for a portion of the period, but the quantity of meat furnished by these smaller animals is of course relatively less than that from cattle.

"With our diminished production in the face of the heavy demand and high prices of the home market we no longer have a surplus for export, and it is no wonder that our export trade in meat animals and products has declined heavily. Our once great trade with England in cattle and fresh beef has vanished, and the only considerable items now shipped to foreign markets are prepared hog products, such as bacon, hams, and lard. From 1914 to 1906 our exports of live cattle approximated 600,000 head annually. For the last fiscal year (1913) they numbered only 24,714, about one-tenth of which went to Great Britain.

IMPORTATION OF MEAT.

"Up to the present year our meat imports have been so negligible that they were not separately listed in the commerce returns. Shipments of beef have recently been received from Australia on the one coast and from Argentina on the other. For years an unimportant number of cattle of the class known as 'stockers' have come from Canada and Mexico.

"While future imports may afford some measure of relief, too much re-

liance should not be placed upon this source of supply. A study of the statistical situation in other countries does not disclose where we are likely to obtain any large quantity of beef for an extended period. Besides our nearest neighbors, Canada and Mexico, the sources of imports are practically limited to South America (especially Argentina) and Australia. New Zealand exports large quantities of mutton but very little beef. Canada and Mexico do not at present give promise of substantial assistance. The number of beef cattle in Canada is only about one-ninth of that in the United States, and shows a steady decrease amounting to over 11 per cent in the last five years. Recently thousands of cattle have been brought in from Canada, mainly because of poor pasturage and partial failure of the hay crop there. This movement may continue for a time, but it will naturally have the effect of further reducing Canada's stock of cattle. The unsettled conditions in Mexico make it unlikely that any considerable number of cattle can be expected from that country for at least a few years. Argentina and Australia are already supplying most of the British imports, and have been called upon to make up the loss in the supply formerly furnished by the United States. The Australian

colonies, however, are sheep rather than cattle countries and export probably four times as much mutton and lamb (by weight) as beef. Argentina is a large producer and exporter of beef, but has apparently reached the limit of its present cattle resources. The number of cattle in that country showed a decrease at the last census (1911) as compared with the preceding one (1908). The report from Buenos Aires that 7,262,000 cattle were killed in 1912 out of a total stock of 29,000,000 indicates that Argentina is drawing on its reserve.

"It appears that England alone could probably take all of the foreign beef available for export, to say nothing of the new markets which have already been formed in other European countries. We shall therefore have to bid against England and other purchasers of foreign beef, and this competition will tend to keep up prices. It must be remembered, too, that this foreign beef is not up to the standard of quality of our corn fed beef.

In view of the present meat situation at home and abroad, it is unlikely that our cattle raisers will have much to fear from foreign beef."

Disinfecting Cattle Barn.

There is more tuberculosis among the dairy cattle in Kansas than there should

be, even though the state is more free from it than other states of equal milk cow population. There is no reason why tuberculosis should exist in any Kansas dairy herd except that it be introduced into the herd by affected animals brought from other states. In every herd in which tuberculosis is suspected there should be a test. The owner of the affected cow should be as eager to remove her from the herd as the authorities. An affected cow is not an economical producer. From a strictly financial standpoint she is a detriment to the herd. Upon the removal of the affected animals disinfection is absolutely necessary in order to protect the health of the general herd. The Pennsylvania College of Agriculture recently published this plan for disinfecting stables, which is valuable for tuberculosis as well as for other diseases:

1. Remove all manure, litter, loose dirt, loose rotten boards, and scrape the floor clean.
2. Sweep the ceilings and walls free from cobwebs, dust and dirt.
3. Wash the feed boxes, mangers, stanchions and partitions with hot water containing enough lye or washing powder to cut the dirt. Scrub all these objects vigorously with a stiff brush.
4. Spray the walls, ceilings and floors with bichloride of mercury solution (1-1000) or a 5 per cent carbolic acid solution (not crude).
5. Flush the floors with a saturated solution of iron sulphate or a solution of chloride of lime (1 pounds to 3 gallons of water).
6. Spray interior of feed boxes, mangers, stanchions and partitions with the 5 per cent solution of carbolic acid. This is done for the reason that there is danger of poisoning the animals if the bichloride of mercury is used for spray upon those structures which the animals can lick with their tongues. The carbolic acid is absolutely harmless if used in a 5 per cent solution.
7. A whitewash applied to walls, ceilings and partitions will add to the cleanliness of the stable.

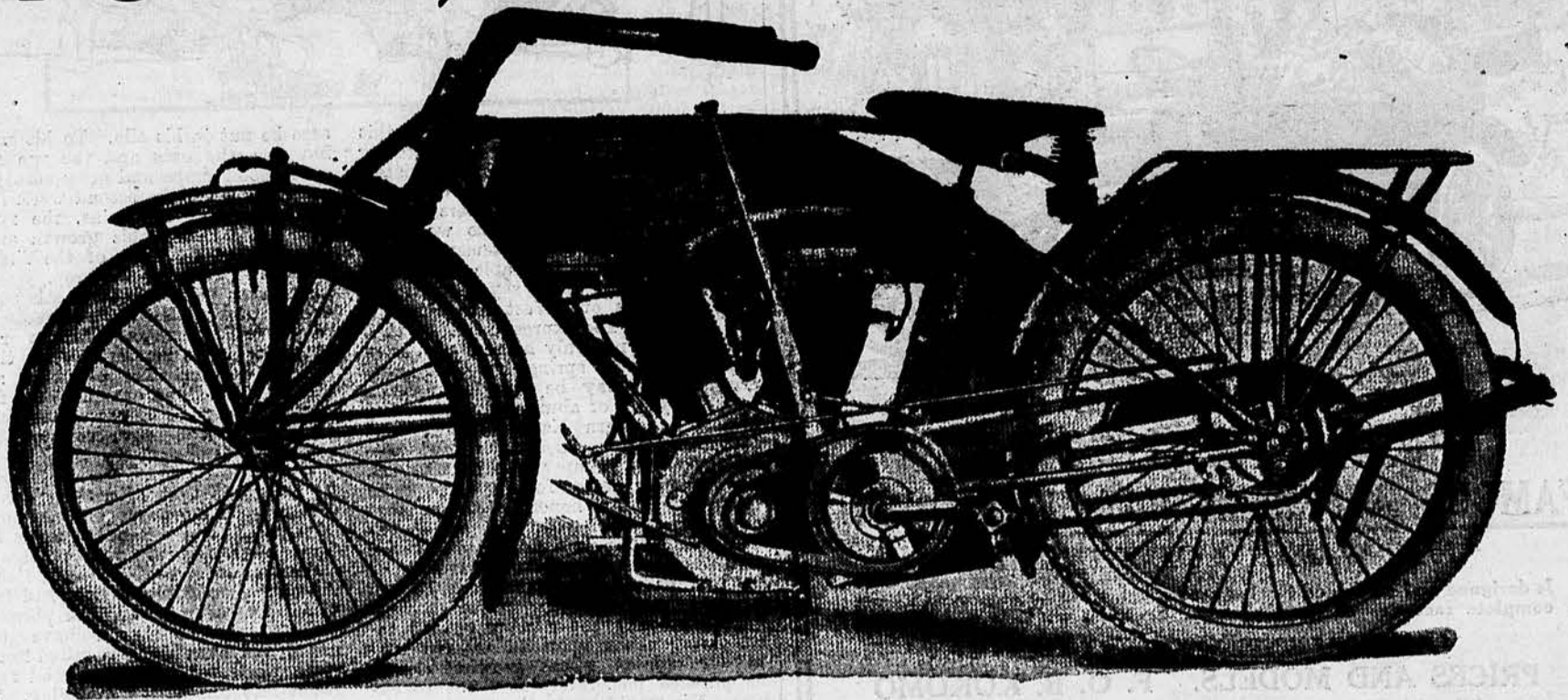
To make a 5 per cent solution of carbolic acid use one part by weight of pure carbolic acid to 20 parts of water. Add the carbolic acid to a gallon of moderately warm water, stir vigorously, then add enough more warm water to make the desired amount. The solution can be applied with spray pumps, sprinkling cans, or with a brush.

Chloride of lime solution is used in the proportion of one pound of lime to three gallons of water. It is a very good disinfectant for floors, gutter and partitions, and can be applied with brush, sprinkling can, pump or bucket.

To Keep Rats From Straw Shed.

One of our subscribers writes to ask if coal tar will keep rats and mice out of a straw shed. We are unable to answer as to this inquiry. Possibly some of our readers may be able to give us their experience on this point.

IT'S FREE, BOYS! SEND IN YOUR NAMES. MAKE MONEY AND WIN THIS \$260 MOTORCYCLE



This Fine Machine and six other Big Prizes to be given away in another Prize MOTORCYCLE Subscription Contest just started by

KANSAS FARMER

We pay you Liberally In Cash for the work you do and the best worker wins the Motorcycle. Write us today about it.



Chas. Erbert, Ellis, Kan., winner of the Motorcycle in the second contest.



Jos. Muckenthaler, Jr., Paxico, Kan., winner of Motorcycle in first contest.

LETTER FROM JOSEPH MUCKENTHALER, JR.

KANSAS FARMER, Topeka, Kan., Gentlemen: The Motorcycle which I won in the first KANSAS FARMER Contest is surely a dandy. It will climb any hill around here with two on the machine. It is the machine that has the power and is very simple to operate. It is built for hard road work. The Contest in which I won this machine was conducted in the best way possible. About twice a week I got a letter which told me how the contest was and how I was standing in the race. If any of you boys want to get in a contest try and get in the next one. KANSAS FARMER knows how to conduct them and will treat everybody alike, so boys if you want to win some prizes, better make up your mind and get in on the next contest.—JOSEPH MUCKENTHALER, JR., Paxico, Kansas.

THIRD CONTEST STARTS RIGHT AWAY AND CLOSSES SATURDAY, FEB. 28, 1914

KANSAS FARMER, the paper you are reading now, is going to give away another fine Motorcycle boys, so send in your names and addresses right away for the THIRD CONTEST just starting.

Joseph Muckenthaler Jr. of Paxico, Kan., won the first motorcycle given away last June, and Charles Erbert of Ellis, Kan., won the second machine given away in November. We are going to give away a dandy new 1914 model, two-speed, \$260 Excelsior Motorcycle, February 28, 1914, in the Third Prize Contest just starting. Five Hundred Dollars in Prizes will be awarded. It doesn't cost you a cent to enter the contest and we are going to pay you LIBERALLY IN CASH for each subscription you secure while in the contest for the machine, and help you to earn from \$40 to \$60 per month. YOU CAN'T LOSE in this contest and you have everything to gain. We turn over to you in CASH and PRIZES what we would pay others for doing this work for us. It is a fine opportunity to turn spare time into cash and a valuable prize easily earned.

One contestant has just as good an opportunity to win as another and you will never know how easily you can win one of these motorcycles until you send in your names and addresses and START. The two other motorcycles were won by sons of Kansas farmers who had never asked people to subscribe for a paper or done any work of this kind before, neither had the other boys who entered the contest, but they did fine and each was paid for his work and the one who secured the most subscriptions in each contest won a motorcycle besides. This is a good time of year to enter one of these contests. You might be too busy when spring work begins and you find people at home in winter with time to talk to you and they read more at this time of year.

The best thing to do is to write at once and we will send you a complete description of the \$260 motorcycle and the six other big prizes to be given away, together with the rules of the contest and our easy plan to secure subscriptions fast and make from \$40 to \$60 per month during spare time. THIS COSTS YOU NOTHING and you will be under no obligation to us whatever if, after reading about the plan of the contest, you decide not to go ahead. If you really would like to own a fine, powerful 1914 Motorcycle with the two speeds just like an automobile 7-10 horsepower, and make money while working for it, send in your name and address at once on the blank below. It will entitle you to a FREE PREMIUM.

You Get Paid Every Week

You don't have to wait until the contest is over to be paid for the subscriptions you secure—you get paid every week. Only those residing in Kansas, Nebraska, Colorado and Oklahoma are eligible to be contestants.

You Won't Know How Easy It Is Until You Start

Don't think for a minute that some other fellow has a better chance than you have. HE HAS NOT. You will never know how easy it is to win in our Motorcycle Contests or how much money you can make until you enter and get started, which only requires that you send your name and address for full information about the prizes and the contest. You can have just as much fun with this Motorcycle as you could with an automobile, and you can go just as fast and as far, and just think—it will be given away absolutely free, freight charges prepaid to your home. Sign and send the blank at once to

The Contest Manager, KANSAS FARMER MOTORCYCLE CONTEST, 625 Jackson Street, TOPEKA, KANSAS.

THIS IS THE BIGGEST PRIZE LIST WE HAVE OFFERED AND WE PAY YOU CASH BESIDES

The contest will start right away. A certain number of points will be given with subscriptions secured to KANSAS FARMER for which you will be paid, and the boy or man who has the highest number of points to his credit at the close of the contest, Saturday, February 28, 1914, at 6 P. M., will be awarded this \$260 Excelsior Motorcycle. The second highest will receive a \$75 Buggy and Harness. The third highest will receive a \$30 Automatic or Double-Barreled Shot Gun. The fourth highest will receive a fine \$30 Gold Watch. The fifth and sixth highest will each receive \$45 Business College Scholarships, and the seventh highest will receive a \$15 Gold Watch. A Business or Shorthand Course may be selected. The Motorcycle is guaranteed to be 7-10 horsepower, new, and in absolutely first-class condition, by KANSAS FARMER. It is sold and guaranteed by the Excelsior Cycle Co., Agents for the Excelsior, Topeka, Kansas.

Free Offer Extra to All Who Enter at Once

Don't wait—send in your name and address today on the coupon below and begin making money at once. To all those who send in their names within 20 days A FREE PREMIUM will be sent with the free outfit, and FULL INFORMATION about the contest and description of all the prizes. Also names and addresses of prize winners in our other contests and a letter telling you just how to proceed. So ACT AT ONCE.

FILL OUT THIS FREE ENTRY COUPON AND MAIL TODAY.

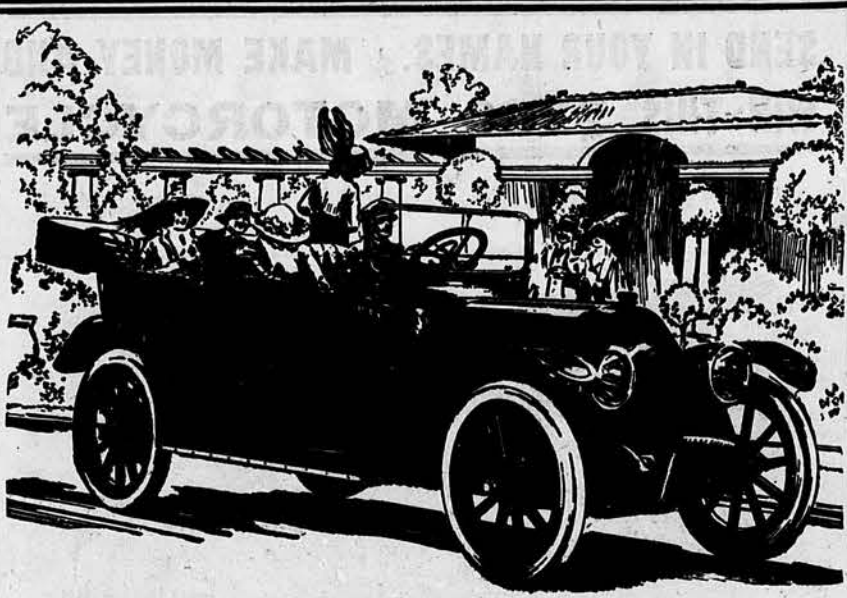
Contest Manager Kansas Farmer Motorcycle Contest,
625 Jackson Street, Topeka, Kansas.

DEAR SIR:—I desire to enter your Third Motorcycle Contest. Please send FREE OF COST the FREE PREMIUM and FREE OUTFIT and your special EASY PLAN to get subscriptions FAST, with full information about the prizes and contest, and tell me how I can win the \$260 Excelsior 1914 Model Two-Speed Motorcycle and earn from \$40 to \$60 per month at the same time.

My Name

Post Office

Street or R. F. D. State



DON'T ask us whether we use this transmission, that axle, or the other clutch, *We don't.* Every vital part of the **FAMOUS APPERSON "JACK RABBIT"**

"THE WIZARD OF THE HILLS"

Is designed and made and the car assembled, tested and proved in the complete factories of the Apperson Brothers at Kokomo, Indiana.

We shift no responsibility to the parts maker

PRICES AND MODELS. F. O. B. KOKOMO

All with Electric Lights, Starter and Full Equipment

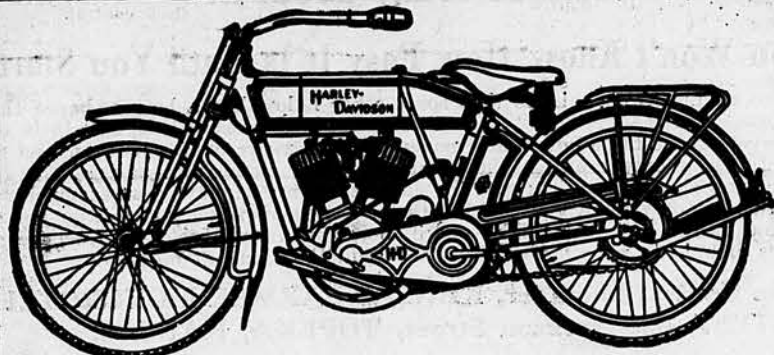
Light Four Forty-Five:	Touring for five.....	\$1,600.00
	Roadster for two.....	\$1,600.00
	Inside drive coupe or town car for four.....	\$2,350.00
Four Forty-Five:	Touring for five.....	\$1,750.00
	Sedan Limousine.....	\$2,500.00
Six Forty-Five Fifty-Eight:	Touring for five.....	\$2,200.00
	Roadster for two.....	\$2,200.00

Apperson Bros. Automobile Co.

**321 Main Street
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3300 Indiana Ave.

KOKOMO, INDIANA
SEATTLE
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**Startling, Exclusive Improvements
Mark the 1914 Harley-Davidson**

Step Starter Starts Machine With Rider in the Saddle and Both Wheels on the Ground

In case the rider accidentally stalls the motor in crowded traffic or on a steep hill it is no longer necessary to dismount, perhaps in the mud and find a level place to set the machine upon the stand in order to start the motor. Instead a downward push on either pedal—the step-starter does its work, and the motor begins again to throb.

Selective Type of Two-Speed

The Harley-Davidson two-speed gear (another patented feature) is located inside the rear hub, thus avoiding dust, dirt or damage. Its speeds are selective and the rider can shift from low to high, or high to low, or to neutral, at any time, whether the machine is standing still or in motion.

Ful-Floting Seat

For the third successive year the Ful-Floting Seat is standard. This patented device floats the weight of the rider between two concealed springs, assimilating all jars and vibration due to rough roads.

We will gladly send you on request our complete 1914 catalog giving full details of these and forty other improvements

Harley-Davidson Motor Co., 854 A Street, Milwaukee, Wis.
Producers of High-Grade Motorcycles for More Than Twelve Years

Double Clutch Control

The patented Harley-Davidson clutch can now be operated either by a foot lever on the left foot board or by a hand lever. The foot lever does away with the necessity of taking either hand off the handle bars, a great convenience when riding through sand or mud.

Double Brake Control

The new Harley-Davidson Band Brake (patented) can be operated either by a foot lever or by back pedaling on either pedal.

Folding Foot Boards

All models are equipped with Folding Foot Boards in addition to the regular pedals.

THE FARM



It is doubtful if ever before at this season of the year a more flattering condition of growing wheat existed. This is indicated by opinions expressed in the great number of letters we receive each week. Rarely do we get a letter in which some statement is not made regarding the favorable wheat condition. A recent letter says: "It looks to us farmers out West like the tide has turned." The expression infers that the writer is not only hopeful of a good wheat crop next spring, but that western farmers may be entering upon a series of years of abundant rainfall. We hope the western Kansas farmer—and for that matter, farmers everywhere—will harvest a bumper crop next season. No stroke of better fortune could come to them. We are hopeful, however, that a good crop next year will not so enthrall them that next fall they will seed all their land to wheat regardless of whether or not the ground can be put in good condition in proper season. Wheat growing has a more or less intoxicating effect upon all farmers and in our opinion wheat growing should be pursued moderately and not to excess. We would apply the same general principles as we would in the case of liquor; of course, we think no man must drink whiskey, but if he has a notion that he cannot live without it, then let him use it in moderation. So with wheat; we need wheat as a cash crop, but we should grow it only moderately, not allowing it to foreshadow the growth of feed crops and the proper use of such crops for horses, cattle, milk cows, calves and pigs. We sincerely hope that every farmer who is now without such live stock as he can successfully handle, will be able as a result of next year's wheat crop, to make a beginning in the accumulation of a little herd of some kind of stock—and by all means, a few milk cows. The wheat production of Kansas, since the records have been kept, has not been such as to warrant a dependence upon wheat. Farmers in those counties—and there are some 33 in Kansas—which for a period of twenty-five or thirty years have not averaged more than 8 bushels of wheat per acre, cannot afford to depend upon wheat. However, they can grow, profitably, 35 or 40 acres each year provided they can do the plowing and the seeding in season. There has been a lot of money made on wheat by Kansas farmers. This money has been made, however, by the comparative small farmer who pursued wheat growing consistently in well balanced farm operations. Most of the wheat kings—and we have known several of them personally—have died poor. We recommend to no individual that he aspire to be the wheat king of his country. The seasons of Kansas, so far as precipitation is concerned, will not change permanently. It may be that we will have a few years of heavier rainfall than during the last few years, but there is nothing in the theory that the rainfall follows the plow. The precipitation of western Kansas, and for that matter of all Kansas, will during the next thirty years be almost identical with that of the past thirty years. The last fifteen years of the thirty-year record do not vary substantially from that of the preceding fifteen years, and farmers nowhere in this state can have any hope of greater rainfall than they have in the past experienced. Under these conditions, therefore, it is wise to develop a system of farming which in the so-called "off years" will have the least effect upon the farmer's stability and success.

Seeding Rye and Oats in Corn.

Not long since we talked with a farm dairyman whose spirits were running rampant. He was much elated over the cream check he had been receiving the past month. He was pleased because at the last cultivation of his corn, which was later than usual because he kept the cultivators going all summer, he had seeded rye and oats in the field, although at the time of seeding it seemed as though he was doing a foolish thing. It looked as though the ground was too dry to germinate the pasture crop sown. However, this man had kept the cultivator running all through the dry weather and to which fact he attributed the 20 bushels of corn per

acre he put in his silo. To his surprise, however, the oats and the rye started off in good shape and grew slowly until the rains came the second week in September. With the rains, the rye and oats made remarkable growth and one month from the date of the first rain he began pasturing the crop.

The man was so enthusiastic over the success of his plan that he recommended we tell KANSAS FARMER readers about it. As a matter of fact, there is nothing further than as above stated, to tell. This is an example of a farmer realizing the need of pasture to help out on a short roughage crop and which promised insufficient to take his stock through the winter. The real lesson to be taught is that of getting seed into the ground almost regardless of how dry it may be, and depending upon Providence to supply the rain necessary to make the crop grow. The corn field was the only ground this farmer had in condition for seeding. Had he plowed vacant ground it would have turned lumpy and would have required not only much work but in fact a good rain to get it into condition for seeding. There is no reason why under such conditions the fall pasture cannot be sown in the corn field—in a dry year that being the field which offers the best opportunity for the growth of pasture. Fall pasture will, nine times of every ten years reduce the feeding season a month or six weeks and many seasons longer than this. Good fall pasture cannot be approximated, either in cheapness or in results, by any other method of feeding. If a greater dependence were placed in fall pasture, larger milk checks would result, the animals pasturing would go into the winter fat and milk and growth and meat would be obtained at less expense than by any other means.

Landlord and Tenant.

We have a letter from J. O. Greene, Stafford County, in which it is said that he very much appreciates KANSAS FARMER and has been much interested in what we have had to say recently relative to the relations of the tenant and the landlord in Kansas. However, he expresses the belief that our remarks we have been in favor of the landlord.

If our subscriber will carefully re-read he will find that we have thrown the burden of the present tenant condition upon the shoulders of the landlord. The landlord is responsible for the one-year lease or rent tenure now generally practiced in Kansas, but which we are confident is each year tending toward a longer lease period. We think the landlord has been favorable to the one-year lease because of his lack of confidence in the tenant. The fact that there are so many poor tenant farmers is responsible for this lack of confidence. It has been our observation that in cases in which the tenant was well known to the landlord that there was no trouble in the tenant securing a lease of three to five years. In fact in such cases the landlord has been anxious to make his lease for such terms.

Our subscriber complains of the character of farm buildings provided by the landlord for the use of the tenant. Better farm buildings would on many farms be provided if it were not for the continual annual shifting of tenants. However, thousands of landlords own the choicest of farms, have the best of tenants and yet fail to provide suitable buildings. Such landlords are, we think, pursuing the wrong course. We personally know of landlords who own the choicest of land in the community in which their farms are located, the buildings on which farms are a disgrace to the community. These men are amply able by virtue of the return received from their land, to so improve it as to provide suitable buildings for the tenant and we expressed, not long since, our somewhat decided conviction that the failure to properly improve land was short-sightedness on the part of the landlord.

In brief, this is a resume of what we have recently had to say relative to the tenant system in Kansas. It is the effort of KANSAS FARMER to not be biased in favor of either landlord or tenant. There is some fault in each

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

along with the good to be found. The tenant must be fair, likewise the landlord. There are two sides to every question and in the final analysis by which the question is to be finally settled, both sides must be considered. Our subscriber submits this paragraph from another paper and which he seems anxious to have printed:

"Farmers in four of the richest communities in Illinois have openly come out against improved roads. In these counties the land is largely farmed by tenants, while the owners live in the towns. The houses on these magnificently rich farms are mere shacks, because they are occupied by tenants. Now the land owners object to paying for good roads because they cost money."

There is foundation for the complaint made in the paragraph. This country can develop to its highest degree of improvement and prosperity only by the plan of the farmer owning the land upon which he lives and the man who owns

land living upon and farming that which he owns.

Grain, Cattle and Wheat
(Continued from page 2.)

States was 730,267,000 bushels; in 1911, 621,338,000 bushels; in 1910, 635,121,000. According to George J. S. Broomhall of Liverpool, England, who is regarded as the world's leading authority on grain trade affairs, the world's output of wheat in 1913 was 3,834,000,000 bushels, or 171,000,000 bushels more than in 1912 and 425,000,000 bushels in excess of the 1911 yield. It is believed, however, that the Broomhall estimate for 1913 is too high, as it includes 977,000,000 bushels for the Russian empire. This total for the Russian empire is about 175,000,000 bushels too high, to judge from the volume of wheat it is moving. It is said the Russian government overestimated the crop wilfully in order to deceive European bankers, from whom she is seeking big loans.

Colt Show Great Educator

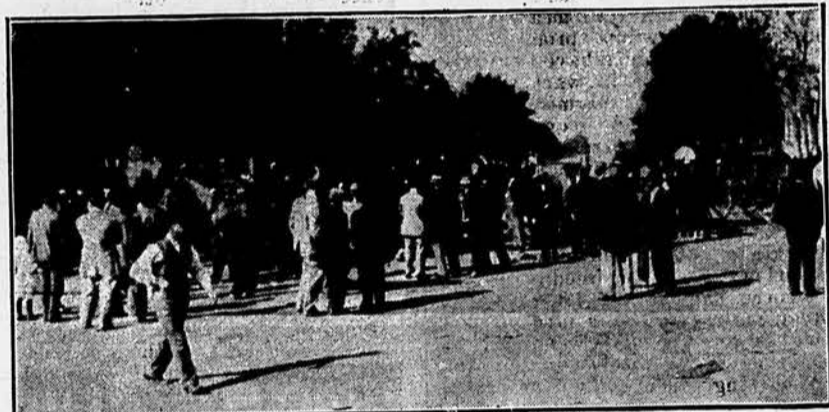
Good Horses From Good Colts and Inferior Horses From Poor Colts—By W. L. Blizzard, K. S. A. C.

If horse and colt shows were more common a greater interest in good horses would rapidly develop all over the country, as there is nothing that will create more interest and enthusiasm among farmers and breeders than a good horse and colt show.

A colt show means more than merely bringing colts to a common meeting place—it necessarily brings the farmers and breeders together, thus promoting sociability; it brings the business man of the town in closer touch with the farmer and makes their interests mutual. The colt show, free from the side attractions of the ordinary county and state fairs, comes close to the home as it is a medium for sociability, for the exchange of ideas and as almost every man, woman and child is a lover

the colts in an open class of about twelve, the writer was asked to place in a stallion special, five colts, all being sired by the same stallion. When these colts had been placed the first four were exactly the same as in the open class, showing the uniformity in the get of a good stallion. The writer has been attending colt shows as judge for several years and it is indeed encouraging to note the increasing interest that is being taken in such shows. In some communities the improvement in the size and quality of the colts raised has been especially noticeable, and upon investigation it was found to be due to the fact that they were using better sires.

Perhaps the greatest difficulty the management of a colt show has to meet



FAMILIAR COLT SHOW SCENE.—ALL INTERESTED IN RESULTS AND BECOMING BETTER JUDGES OF HORSES.—A REQUISITE IF PROGRESS IS TO BE MADE IN HORSE IMPROVEMENT.

of good horses, the annual showing of colts makes an ideal place to "talk horse" and to create in the minds of the boys of the community an interest in good horses. An interest created in this way is sure to bring good results, results that will be shown in a community by the improvement of the quality of the colts from year to year. The colt show is a big factor in leading to the improvement of the horses in a community and does a great deal to create a desire on the part of the breeder to raise one and only one type of horses. Competition is the backbone of a colt show as it creates a permanent interest, and the greater the number of colts shown the better and more popular will the show be. To secure this large number, an inducement in the form of liberal prizes must be offered; prizes large enough to recompense an exhibitor for his time and trouble.

It is also necessary that a colt show be well and judiciously advertised to make it a success. A real live colt show once started advertises itself, as it does not take the horse buyer long to find out where the good colts are being raised.

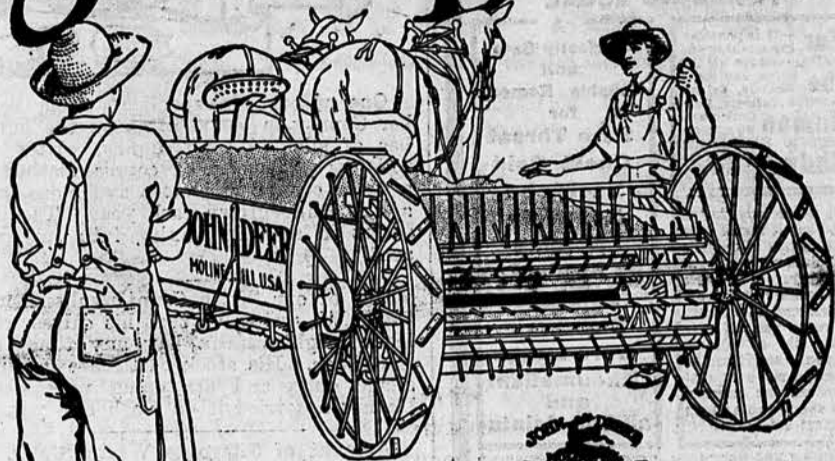
The man who exhibits his young stuff at a colt show and goes into the competition with enthusiasm is making himself a judge of horses, and until he is a judge of horses he can never become a successful breeder. Good farm horses, market topping horses, show geldings, and the best bred mares, are usually found in communities where they have good colt shows.

At one fair this fall after placing

is to secure competent judges. The decisions of the judge will show more clearly the importance of good type, well set legs, good feet, strong pasterns, well set hocks, clean feet, bone and plenty of size and quality. His decisions will also show that in improving the quality of the colts the best sires must be used. It is indeed surprising in some localities to see what poor stallions are standing for public service. Is it any wonder that there is not a better class of colts in such communities? As a rule good horses grow only from good colts and bad horses from bad colts. Life is too short for any man to spend four years trying to develop a good horse from a poor colt. While he is waiting the wide awake breeders, by using the better sires and dams, will far surpass him in his efforts. Where good stallions are used the colts are more uniform in type and quality and you can usually pick out the colts of the good stallion, provided they are not out of too common mares.

Nothing in horse flesh is so hard to judge as foals. To pick out the great horse in his ungainly form is no small task. Too many men when judging colts consider them from the standpoint of a fully developed horse. The colt that is too short, dumpy and close to the ground when young will never mature into a real good draft horse. He must have a little stretch and show some ranginess. Of course it can be overdone either way, but you can feed a horse down, to some extent, but you cannot feed him up to a size and scale which he does not possess.

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LIVE STOCK



One of our correspondents from Barber County in commenting on the number of silos in that county, writes as follows: "This is of course distinctly a stock county and more and more forage is being grown each year."

One of our Smith County subscribers, T. M. W., writes us that his calves will leave bright alfalfa hay any time for the silage.

Amount of Silage to Winter Cows. In the article in our December 13 issue, by Professor Cochel on the subject of silage and stock farming, there appeared a table giving the results in wintering breeding cows at the Hays Experiment Station.

This lot it will be noted consumed a daily ration per cow of 17.2 pounds of wheat straw in addition to the 20 pounds of silage. The wheat straw on most farms is considered as a by-product and the number of acres involved in its production would not enter into the account in calculating the acreage required to produce sufficient feed to winter an animal.

Herd Book Records. During the past week the library of KANSAS FARMER has received Volume 31 of the Holstein-Friesian Herd Book.

The opening pages of this volume contain matter of great interest to breeders of Holstein cattle.

We have also recently received Volumes 42 and 43 of the American Berkshire Record.

The KANSAS FARMER library contains the complete records of most of the record associations. They are used here constantly in our office.

to the records of his breed. Readers of KANSAS FARMER who may desire at any time to consult these records in our library are welcome to use them.

Pure-Bred Live Stock Rates Unjust.

The National Society of Record Associations, a voluntary organization of the pure-bred live stock registry associations, which includes 30 of the leading associations in America, representing a total membership of more than 97,000 breeders, has been persistently working toward an adjustment of the present inequitable and unreasonable railway rate requirements governing the shipment of pure-bred live stock.

The Supreme Court of the United States handed down a series of decisions in the spring of 1913, the effect of which precludes live stock shippers, in loss of live stock in transit, from recovering anything but the value stated in the live stock contract, signed by the shipper at time shipment is made.

This is the most important decision ever handed down by the Supreme Court affecting live stock interests. Railroads have heretofore settled for animals lost in transit on basis of actual value.

A stallion shipped from Chicago to Madrid, Iowa, over the C. M. & St. P. Railway takes a minimum weight of 3,000 pounds. The rate amounts to \$20, provided the shipper signs the limited live stock contract.

The same conditions prevail in the shipment of breeding cattle, the only difference being in degree. In addition to the foregoing, all of the railroads are in the habit of issuing exceptions to the live stock classifications and rates, which have the effect of superseding the published tariffs.

The National Society of Record Associations has gone into this matter exhaustively within the past two years. Every effort has been made to adjust this matter through the uniform classification committee of the railroads, but without success.

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for a favorable decision on the following four counts:

First: That the minimum weight required by the railroads for the shipment of animals in less than car lots be left as it is in the western classification and that the minimum weight in the official and southern classification be made uniform with that of the western classification.

Second: That the railroads be requested to cease issuing exceptions to the classifications, requiring attendants to be in charge of live stock in shipments less than car lots, and that no attendant be required on any of the railroads.

Third: That the liability assumed by common carriers under their present limited liability live stock contracts, be increased in the case of registered animals shipped in less than car lots to \$200 on horses, \$150 on cattle, \$50 on hogs and \$50 on sheep, with the understanding that shippers must present registration papers before being permitted

to ship live stock on this contract.

Fourth: That where shippers voluntarily desire to ship their animals at a higher valuation than specified in the regular limited liability live stock contract, that the increase in rate be made 5 per cent per each 100 per cent increase in valuation or fraction thereof, instead of 25 per cent increase in rate per each 100 per cent increase in valuation or fraction thereof.

At the annual meeting of the National Society of Record Associations, which was held in Chicago during the International Stock Show, the preceding matters were taken up and reviewed, and it was decided that a committee from the National Society of Record Associations should first be sent to Washington to present this matter to the Interstate Commerce Commission, as it was the opinion of breeders who have had experience in rate matters that more could be accomplished in this way than by dealing through attorneys.

Jackson County Breeders' Banquet

Great Enthusiasm for Better Live Stock at Annual Banquet of Jackson County Improved Breeders Association

REFERENCE has already been made in these columns to the organization of the up-to-date live stock breeders of Jackson County into an association having for its purpose the development of the live stock interests of that county. Jackson County has admirable conditions for the production of the best of live stock, and there is no reason why it should not become known as one of the distinctive live stock centers of the state.

As an aid in promoting the interests of this live stock association, a banquet was given in Holton on Wednesday evening, December 17, which was attended by 150 of the live stock breeders of the county and a number of business men who are directly interested in the promotion of these interests. At this banquet Prof. W. A. Cochel of the Kansas Agricultural College made the principal address. Professor Cochel has

larger percentage of the farms must be devoted to the growing of alfalfa, clover and other forage crops. The figures introduced by Professor Cochel on this point follow:

Crops.	Acreage	Per Cent of Tilled Land
Corn.....	101,458	54.5
Wheat.....	21,380	
Oats.....	9,837	
Millet.....	4,683	
All other crops.....	4,025	
Alfalfa.....	5,106	2.7
Clover.....	9,324	5.0
Timothy.....	16,258	
All other tame grasses.....	13,207	15.8
All grasses and legumes.....	43,895	23.5
Total.....	185,876	

The speaker held up before the pure-bred stock breeders of this association the importance of their using their organization to encourage in every way possible the use of more and better live stock in Jackson County.

Short talks were made by Bruce Saunders, president of the association; De Vere Rafter, its secretary; H. O. Tudor, F. C. Pomeroy, P. E. McFadden, G. F. Mitchell, R. J. Linscott, and other members of the association. KANSAS FARMER was represented by Jesse R. Johnson, who made a short talk, and W. J. Cody. Mr. Cody in his talk was able to greatly encourage this organization by giving them from his own observation something as to the wonderful results following the organization of a similar association in Shelby County, Iowa. This county has become famed far and near as the home of high-class pure-bred live stock.

One of the important events of this meeting was the starting of a movement to secure a county demonstration agent for Jackson County. This proposition received the unanimous endorsement of the meeting, and a committee of three members of the association was appointed to take the matter up and a request was made to the County Grange to appoint a like committee to lend their assistance in endeavoring to secure the services of a suitable man as demonstration agent. A demonstration agent can be of great assistance to farmers of the county. This has already been thoroughly demonstrated wherever the experiment has been made.

There seemed to be a strong sentiment present among the business men in favor of joining with the breeders in putting on an annual stock show and making it one of the leading events of its kind in the state. Such stock shows are always a stimulus to the improvement of live stock. The idea of holding combination sales of pure-bred stock is another project contemplated by the association.

The breeders of dairy cattle are on the increase in this county, and the men are very much interested in the organization of a county cow testing association. This is a very important movement along the lines of dairy cattle improvement, and is well worthy the attention of the Jackson County Improved Stock Breeders' Association.

The possession of absolutely reliable records as to the productive powers of dairy cattle is not only of great importance to the owners of cattle from the standpoint of placing the business upon a strictly paying basis, but is of great assistance in furthering the sale of surplus stock. It is to be hoped that the breeders who have banded themselves together in this movement in Jackson County will work in perfect harmony and will use every effort possible to carry out the aims and purposes of the association.



K. S. A. C. SHORTHORN HERD BULL.—PURE-BRED SIRE ESSENTIAL ON LIVE STOCK FARM

made a close study of the relation live stock bears to agriculture, and in his discussion he followed closely the conditions existing in Jackson County at the present time.

The steady decline in the yield per acre of the staple farm crops is evident all over Eastern Kansas. Professor Cochel called attention to this fact, and likewise referred to the large per cent of land which was being tilled and the small per cent of land being devoted to grass and legumes. He showed clearly the relation which exists between this decline in crop yield and the method of farming which has been practiced so long. Stock raising and diversified farming are an absolute necessity if this condition is to be corrected. It was pointed out that every bushel of corn hauled from a Jackson County farm meant the removal of 20 cents' worth of soil fertility. The following figures taken from the reports of our State Board of Agriculture show the decline in acre yield for the two staple grain crops, corn and oats. In arranging this table the figures have been grouped in five-year periods to overcome seasonal variations:

PERIOD.	CORN. Bushels Per Acre.	OATS. Bushels Per Acre.
1910 to 1906.....	23.8	22.4
1905 to 1901.....	22.4	22.4
1900 to 1896.....	26.4	21.0
1895 to 1891.....	27.6	21.6
1890 to 1886.....	27.6	30.2
1885 to —.....	33.8	31.0

The present condition as to the acreage in the various farm crops in Jackson County form an interesting study in connection with this matter of decreasing yields of the grain crops. In order to overcome this condition and build up the agriculture of the county, far greater use of live stock must be made, and this would mean that a much

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DAIRY



This is a good time to be thinking about the silo as a means of taking care of next year's feed. It will pay to get the literature of the various silo concerns. This will not only set forth detailed description of the various silos made, but will contain much authentic silo information. It will be a good plan, also, to visit those neighbors who have silos and find out what they think of silage as a feed, how their cows are doing this winter as compared with last, when no silage was fed, and also how they like the particular silo they have. Do not confine your silo investigation to one farm, either. Visit all the farms you can conveniently. You will then get the different viewpoints and be in better position to draw satisfactory conclusions for yourself.

The members of the Pioneer Cow Testing Association of Dickinson County will meet in Abilene, January 10, to complete the reorganization of that association for another year. All farmers of Dickinson County interested in dairying are urged to attend this meeting and participate in the discussions. Professor Reed of the dairy department of Kansas Agricultural College will be present. KANSAS FARMER understands that 311 cows are already subscribed for the testing work in the year 1914. It is the desire of the reorganizers, however, that 500 cows be subscribed. There should be no trouble in Dickinson County in securing the desired number. Those dairy farmers outside of the association who are hesitating on the cow testing are standing in their own light. It is certain that the facts relative to the advantages of cow testing, as printed in KANSAS FARMER, should be sufficient to convince those who are needed to subscribe the required number of cows, that they should lose no time in so doing. It should be remembered by them that they are joining an association which has had one year's successful work, and this is of value to new members.

The output of oleomargarine in the Chicago district for the month of November shows a big increase, it having been 234,053 pounds of colored and 9,027,748 pounds of uncolored. This is a total gain over November of last year of 1,231,377 pounds. There are two things deserving of attention in these figures. First, that people who desire to purchase oleomargarine will buy and eat the uncolored product, and second, that the American farmer is not keeping pace in the production of dairy products with the demand therefor. In other words, the man who hesitates to engage in dairying because of the fear of over-production of butter, will note from the above that there is not yet enough butter to go around. There is no occasion for fear of over-production interfering with any farm dairyman. It is well to note from the above, too, that since the uncolored oleomargarine is consumed so freely there is no reason in the world why oleomargarine should be colored and so permitted to deceive the consumer and that the oleomargarine manufacturer may illegitimately compete with the dairy cow.

Recently in these columns mention was made of gasoline tainted cream being received at the creameries of the state and the ascribing of this taint to the use of gasoline engines operating cream separators. We are convinced as a result of our own observation that much cream is tainted with gasoline through such source. Since the appearance of the article, however, we have received a statement from the Concordia Creamery Co., Concordia, Kan., which is to the effect that much gasoline tainted cream is being received at its plant. Upon the appearance of such cream its men were instructed to investigate the source of the taint and it was found that many farmers who own automobiles fill the cream can with gasoline after the delivery of cream and on the return trip home. The can is then not thoroughly rid of the gasoline odor before being again filled. The cream seller who is so fortunate as to own an automobile is to be congratulated, but he should remember that gasoline does not mix advantageously with cream when considered from the standpoint of the cream-

ery or the butter consumer. The automobile owner can well afford to possess cans for the exclusive use of transporting gasoline and thereby avert the necessity of making a cream can do double duty. The fact is that the cream can should be used for nothing—absolutely nothing—except cream.

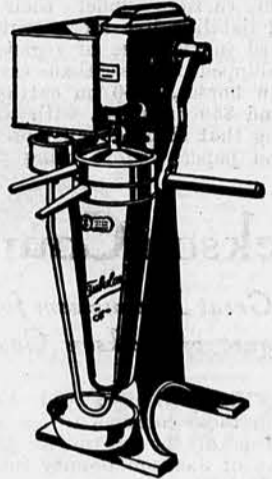
Ten to fifteen years ago when hand separators were being sold in large numbers in the western states, butter dealers were strongly opposed to the use of such machines because they were certain that the quality of the butter made from hand separator cream would depreciate very materially as compared with the quality of that made from whole milk. The fact is that there is much fancy hand separator butter now on the markets, and there has been much of such butter since the use of the separator became general. The fact is, too, that there is much poor quality of hand separator butter, but this is not due to the machine. It is due, however, to the method of handling the machine and handling the cream after it is separated. It is not unusual to hear talk among butter men to the effect that the day will come when farmers will sell whole milk instead of hand separator cream. It is our guess that the farmers of the West, particularly, will never sell whole milk for butter-making purposes. There is an economy in the use of the hand separator which will force itself and the machine upon the dairyman. However, the time will come when the farm dairyman will be compelled to exercise better care in the handling of cream and which will result in the improved condition of the cream when it is sold. The farm dairyman can prepare to take better care of his cream, but he need not expect to see the time come when he must discontinue the use of his separator.

The eastern farmer views dairying from a much wider range of usefulness than does the western farmer. For instance, the easterner considers dairying largely from the standpoint of maintaining soil humus and fertility. This, through the use of the manure, and also through the growth of the clovers and other legumes which in themselves have a soil fertility maintaining value and which character of crops are particularly adapted to an economical and abundant milk flow. The western farmer views dairying almost wholly from the standpoint of the needed steady cash income and rarely from the standpoint of the beneficial results to his farm lands. The fact is, of course, that in a state of such large farms as have we in Kansas, the manure from the barns is a small factor in maintaining either humus or fertility. To undertake to maintain the farm fertility and humus with manure alone would, in Kansas, be almost out of the question. However, the careful use of all the manure produced on the farm, with the production of crops best adapted to the feeding of farm live stock, will go a long way in the direction of keeping the farm lands fertile and in good condition, and this is a factor in dairying which should be considered. It is well for the farm dairyman to understand that when he grows the feed needed for a considerable number of cows and for the young stock from the same, he is benefiting his farm in a way which cannot be estimated in dollars and cents. However, it is something and in fact much greater than is generally believed, and whatever it is should be placed to the credit of the dairy.

Profit in dairying is the difference between the cost of production and the selling price. This is, beyond any question, the basis on which the specialized dairyman should conduct his business. This is the basis of all figures made by experiment stations and others in the handling of cows. When such figures are made, the cost of feed, cost of labor, the interest, taxes, depreciation, etc., are charged against the herd. To be sure, all of these charges have the effect of reducing the profit, and to the average farm dairyman who is struggling to get his dairy on a money-making basis, present a considerable obstacle. However, satisfactorily large profits can be and are being made from first-class good

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dairy herds with all these charges entered against them. The fact is, too, that the profit in growing wheat should be determined on identically the same basis, and when such charges are made against wheat it is doubtful if any more actual profit has been made thereby than is made from the average herd of farmers' cows. In the West where we are pursuing dairying as a side issue and where cows are kept because the farm would not be a farm without cows, the farm dairyman is not justified in becoming discouraged when he examines carefully into the reports made on a strictly profit basis—either of individual special purpose dairy cows or of common cows. Dairying in Kansas, as has been stated in these columns, is profitable, even though it net no more than a reasonable return for the character of the roughage given. Such return will be in cash. The roughage ordinarily has no market value. The cash it returns through the milk cow is the cash received for the labor put into the growing crop. In other words, the cow is paying for the labor attendant upon the milking and the care. Dairying—real dairying—will pay well after all the legitimate charges made against it have been figured, and as a business, dairying will bear the closest investigation. However, the milking of cows—which is not dairying at all—requires another standard when its profitability is considered. The Kansas farmer knows that it pays to properly feed and care for a good cow and that the better the cow the more profit there is. The skim milk for the pigs and the calf and the increasing value of the cow are all additions to the dairy income which make the maintenance of the farm milking herd a profitable undertaking.

We recently received a letter from a Western Kansas dairy farmer who expressed himself as very much dissatisfied with the manner in which the creamery business in Kansas is conducted. What he wrote, if printed, would get KANSAS FARMER into trouble with the postal authorities. His idea was that instead of the 45 or 50 creameries which are now in operation within the borders of Kansas, and the 10 or 12 other creameries outside of the state which buy cream inside the state, we should have four or five hundred smaller creameries, as have other states in this Union. The subscriber must keep in mind that the present system of creamery operation in Kansas is the outgrowth of conditions surrounding dairying in this state and which conditions have existed since the first creamery was built. The condition is that of the general conduct of dairying as a side issue. There are few farmers in Kansas who would milk cows if they could do as well at anything else. A large proportion of the dairying done in the state is not through choice, but because of conditions which make dairying the most certain income of all industries to which the farmer is able to turn his hand. This is a condition which exists generally because of the satisfactory production of cash market crops. While Kansas is admirably adapted to dairying and cows can be milked in this state more profitably or at least as profitably as in any other state, our farmers are not compelled to depend upon the dairy to the same extent as are farmers in other states. In the particular community from which our subscriber writes, ten years ago there were ten pounds of butter fat produced where there is now one. The falling off in his community is not due to the fact that the milking herd was not found profitable, but because farmers disliked milking cows and thought the easier way to acquire prosperity was through the growing of wheat. It would be absolutely impossible for a creamery to be maintained on a profitable basis in the county from which this subscriber writes. It is because of the comparatively small production of butter fat in the various localities throughout the state that Kansas does not have more creameries. The present situation will not be changed until the production of raw material sufficient to make creameries profitable is produced in the various localities. Kansas has had her day of the small creamery. At one time she had some 250 or 300 of them. This was during the hard times when milk was about the only thing the farmer had to sell. When the seasons became better and crops grew with a greater certainty, the milk cow and the creamery were forgotten. It is a godsend to Kansas, under present conditions, that cream can be skimmed on the farm and sold to the cream receiving station. There will be a day when Kansas will be compelled to engage in dairying—serious dairying. Then the product will have increased to the point that the small creamery may

be made successful. We have a copy of the Michigan Dairy Farmer—and Michigan is a state of small creameries—in which it is said that a canvass of any 50 creamery plants in that state will reveal that not more than five of that number are actually making any money. This is a voice from afar which should mean much to Kansas. When we have the product on which to work, the creamery system may change, but not until then.

Great Dickinson County Herd.

Here is a study for every farm dairyman. It is a report of the production of the 30 largest producing cows tested during the months of January to November, 1913, inclusive. These 30 cows if brought together under one roof would make a great herd, and the profit therefrom would cause any other farm industry to hustle for supremacy. The essential thing is that these cows would not have been "discovered" except for the Babcock test, and then to recall that it cost through the association only one dollar per cow to do the testing is truly interesting. When you realize that it is possible for the herd owners to bring the standard of their entire herd up to that of the best cow, it makes dairying look like a different business as compared with the ordinary cow milking. KANSAS FARMER congratulates the owner of each cow and glories in the gumption each exercised in placing his herd on test. Here are the owners' names, the breed of the cow and her eleven months butter fat record. When it is recalled that this is a record made during a short pasture season, during extreme heat and short fall feed conditions, the record is all the more remarkable.


1. A. B. Wilcox.....Hol.....502.08
2. J. R. Sterling.....Jer.....405.88
3. J. R. Sterling.....Jer.....374.62
4. J. R. Sterling.....Jer.....346.49
5. George Lenhart.....Hol.....340.38
6. A. B. Wilcox.....Hol.....339.42
7. R. E. Hershey.....Hol.....335.11
8. R. E. Hershey.....Hol.....332.75
9. George Lenhart.....Hol.....333.40
10. A. B. Wilcox.....Hol.....331.27
11. J. R. Sterling.....Jer.....330.79
12. O. E. Nichols.....Jer.....327.84
13. R. B. Wilcox.....Jer.....326.79
14. John T. Leshner.....S. H.....325.54
15. John T. Leshner.....Jer.....321.47
16. A. B. Wilcox.....Jer.....321.20
17. S. Goldsmith.....Jer.....319.98
18. R. B. Wilcox.....Hol.....319.23
19. L. L. Engle.....Hol.....315.23
20. R. E. Hershey.....Jer.....312.23
21. A. B. Wilcox.....Jer.....307.83
22. J. R. Sterling.....Jer.....306.53
23. A. B. Wilcox.....Jer.....304.38
24. John T. Leshner.....S. H.....301.46
25. John T. Leshner.....Hol.....301.38
26. J. R. Sterling.....Jer.....297.93
27. D. S. Engle.....Hol.....296.96
28. J. R. Sterling.....Jer.....296.71
29. George Lenhart.....Hol.....294.81
30. John T. Leshner.....S. H.....294.81

Ralph May, the tester, adds: "This does not really show the relative worth of each cow, because some cows made their standing in a less number of months than others. Next month's production will make many changes in the list, as some of the cows are fresh, others are about dry. You will notice that 26 cows have made over 300 pounds of butter fat in 11 months, out of a total of about 365 cows, which you will agree is pretty good considering the dry summer and feed shortage."

Colonel Howell.

Jesse Howell, the successful live stock and general auctioneer located at Herkimer, Marshall County, Kansas, writes that he made a good sale of dairy cattle for E. R. Morgan of Blue Rapids, recently. Mr. Howell speaks of having booked a couple of good breeder's sales lately, and says the firm of Howell Bros. has had a good trade on Duroc Jersey boars but still has a few good ones left. They have over 50 sows and gilts already bred for spring farrow, some for their own use and the others to be included in their winter bred sow sale.

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Woonsocket, R. I.

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FINE heaters—glass oven door ranges, oven thermometers, etc.—any style you want—5 to 8 months credit if you wish. Don't pay dealer's high price. Over 250,000 people have bought Kalamazoo stoves. You will too, when you see the quality. Write for Catalog 1913. See what you can save on your new stove. Kalamazoo Stove Co., 1117a Kalamazoo, Mich.

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A Kalamazoo Direct to You

Cash or Easy Terms



TAKES THE PAPER FOR THE ADVERTISING

ONCE in a while one of our subscription men meets a farmer who admits he takes the paper not only for the reading matter, but for the advertising as well. ¶ We view that as a compliment. The publisher, the reader, and the advertiser, all constitute a trinity of interest in a farm paper, and the interest of one cannot suffer without all suffering. We are proud of the fact that KANSAS FARMER attracts a high class of advertising patronage, and that these advertisers find it profitable to be represented in the paper.

ARE YOU INTERESTED

In selling Breeding Stock and Eggs to the best advantage? Send for **PROFITABLE POULTRY SELLING** ISSUED BY KANSAS FRMER

If you are planning to find sales for surplus stock and eggs you should have this booklet. A post card will bring it to you by return mail.

The Inside Facts On Light Draft in a Harrow



The Result of a Straight-Away Pull with Non-Binding Disk Boxes

There are only two harrows made that do not bind in the disk boxes while the harrow is at work—the Janesville and the Budlong.

Here is the point that effects the draft: Study Fig. 1 to the right—the Janesville way. This is the true position of the disk box while at work. No side strain—no twisting. The wear on the spool is equalized—oil gets to all parts—the bearings last longer. One man used a Budlong 23 years before he replaced his first set of bearings. It's easy to see what this means for light draft. All the good features known in harrow building are built into Janesville and Budlong Harrows.

JANESVILLE AND BUDLONG HARROWS Have many features that no other can offer

The disks are hung in the machine so that they enter the ground like plow points. This is something new in harrow construction. They will cut into any ground in condition to be harrowed.

Your choice of steel or wood bearings. All bearings are interchangeable, and we will replace any chilled bearings proving defective within life of the machine. All sizes—concave—plow cut—spading or cut-out disks, one or two levers, with or without tongue trucks and transports.

Write for the Janesville Catalog

and learn why it is to your interest to insist upon buying Janesville machines when you buy plows, harrows, cultivators or corn planters. Every machine has the highest degree of efficiency backed by 52 years' experience. Write today for the catalog. Address **Janesville Machine Co., 47 Center St., Janesville, Wisconsin**



keep the child away from healthy children. The infection from both of these diseases lies largely in the skin. The infected skin peels off or scales off and is carried in many ways to others. In scarlet fever the discharge from the throat and nose are also highly contagious. A few ways of preventing this spreading of the germs of these diseases may be mentioned. The sick child should be isolated in an upper room removed from the other occupants of the house. Only one attendant and the physician should be allowed to enter that room. A sheet moistened with a 1 to 2,000 solution of bichloride of mercury (corrosive sublimate) should be hung over the doorway. The room should be free from all unnecessary articles. All clothing and bed clothing

should be disinfected before leaving the room. Food remaining from a meal should be covered with disinfectant and burned. Utensils of all kinds should be boiled in the room before being removed. A simple expedient for the prevention of the spread of these diseases is the anointing of the entire skin surface of the patient with cocoa butter and wiping the surface with a soft cloth and then literally "burn the rag."

After the recovery of the patient the room should be fumigated with formalin gas and thoroughly cleaned, and each and every article in it disinfected.

Absolute disinfection and cleanliness are the key words to the prevention of the spread of these diseases.—C. S. Putnam, M. D., North Dakota Agricultural College.

FASHION DEPARTMENT — ALL PATTERNS TEN CENTS

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



No. 4650—Ladies' House Dress. The dress we illustrate is one of the simplest. It has a Gibson tuck at the shoulders in both front and back, and these extend all the way to the bust. The closing is at one side of the waist. The sleeves are the plainest leg o' mutton shape and full length. The pattern, No. 4650, is cut in sizes 32 to 42 inches bust measure. Medium size requires 5 1/2 yards of 36-inch material. Price of pattern, 10 cents. No. 5991—Girls' Dress. Here is a dainty little frock for the small girl, and one quite easy to make. The garment closes at the right side of the front and has a removable shield. The skirt is a three-piece one. Linen, serge or gingham can be used for this dress. The pattern, No. 5991, is cut in sizes 6, 8, 10 and 12 years. Medium size requires 3 3/4 yards of 27-inch material. Price of pattern, 10 cents. No. 4830—Ladies' One-Piece Kitchen Apron. The busy woman will no doubt appreciate this apron design, as it is one of the simplest ever offered, besides being neat looking and practical. The apron is cut in one piece and fastens by a single button. The pattern, No. 4830, is cut in sizes 32, 36, 40 and 44 inches bust measure. Medium size requires 3 yards of 36-inch material. Price of pattern, 10 cents. No. 4842—Children's Rompers. Every small boy and girl needs a pair of rompers, and here is an excellent pattern for making such a garment. These rompers close at the back. Linen, gingham or percale can be used to make the rompers. The pattern, No. 4842, is cut in sizes 2, 4 and 6 years. Age 4 years requires 2 1/2 yards of 27-inch material. Price of pattern, 10 cents. No. 6460—Child's Apron. The sacque design is always nice for little girls, especially when they attend kindergarten or school, as it entirely protects the dress underneath. This garment is quite plain and is high in the neck, where there is a small collar. The sleeves are of bishop pattern. The apron pattern, No. 6460, is cut in sizes 2, 4, 6, 8, 10 and 12 years. Medium size requires 3 1/2 yards of 27-inch material. Price of pattern, 10 cents.

More Dollars For The Farmer

DO you know that sorghums matured grain in every county in Kansas the past season? If you did not get a crop you should know how your neighbor did. There is a reason why you failed and why he succeeded. These reasons have been run down by Mr. Borman, Editor of Kansas Farmer, and he gives them to you in his book. That is a good reason why you should have it.

¶ The sorghums have increased the value of every acre of land on which they have been grown, and as yet they have been used in only a sort of an experimental way. Why not go in for them strong? They are the "sure feed crops"—as sure as any crop can be when rightly handled. It makes a big difference whether or not you have feed for your stock. You can have it if you will learn about the sorghums and place your dependence in them and treat them right.

Cash Markets For Sorghums

¶ The market for kafir and milo is rapidly developing. It will sell as readily as wheat or corn and will bring all it is worth. If you can't feed these grains you can sell them—and it is money—some way, some how—that most of us need.

Handle Safely With Small Expense

¶ Did your kafir or milo ever heat in the bin—and you thought you would grow just a little on that account? Well, Borman spent all his spare time one winter cooling off heated kafir. He found out how it can be stored without heating—in fact there is no need for threshing it—and how to feed without threshing is told in the book.

Sorghum Testimony Convincing

¶ There is no good reason why you should not grow sorghums—there is every reason why you should—if you really want to get along in the world. In brief, that's the testimony of thousands of Kansas, Oklahoma and other sorghum belt farmers whose conclusions and methods furnish the material for this sorghum book.

Special Offer

¶ On new and renewal subscriptions to KANSAS FARMER, the book will be sent, prepaid, together with KANSAS FARMER for one year, for \$1.50.

¶ This book is now in press and we expect to begin filling orders by January 25. The Sorghum Book will be printed on fine book paper and bound in cloth. The price will be \$1.25.

¶ To order, fill out the coupon below. Send your remittance and address all letters to

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I enclose herewith \$1.50 for which please send Kansas Farmer one year and a copy of Mr. Borman's Book on Sorghum, postpaid.

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National Grange Items

Acts of Public Interest Adopted by National Grange at the Forty-Eighth Annual Session

INVITATIONS for the next meeting of the National Grange were received from Illinois, Missouri, New York and Delaware. Delaware was selected. California will probably be the convention state in 1915, when the Panama Exposition is on.

FINANCIAL CONDITION.
The total assets of the National Grange October 1, 1912, were \$99,390.35 and the total assets October 1, 1913, were \$95,923.04. The total expense during the fiscal year was \$46,545.34, of which \$14,500 was used directly for extension work.

POSTAL SAVINGS FUNDS.
The National Grange favors loaning the money deposited in postal savings banks directly to farmers and home builders, at a low rate of interest sufficient to pay the cost of the business, following so far as practicable the plans so successfully operated in Europe and under the necessary restrictions to insure safety.

FOREIGN RELATIONS.
The committee on foreign relations recommended the establishment of free ports in the United States, in order that the farmers might receive the greatest benefit from the Panama Canal; especially such ports at both ends of the said canal, and congress was desired to take prompt action to secure the establishment of such ports. It further expressed approval of President Wilson's course in the Mexican situation and the secretary of the National Grange was instructed to wire the President that the National Grange endorsed his position in the Mexican matter.

PARCELS POST.
A greatly extended and improved parcels post, and more extensive and simplified postal savings banks and the lending of their accumulated funds to farmers, is demanded.

VOCATIONAL EDUCATION.
The grange endorses a national plan for vocational education and agricultural extension, but regards the improvement of the country elementary schools and of the rural high schools of great and paramount importance.

INTERNATIONAL PEACE.
The committee on international peace favored the endorsement of the advanced thought and plans of Secretary of State Bryan, for arbitration treaties between the United States and all other nations; and especially that phase of such treaties as requires a year of consideration on all matters of international difference by wisely-selected arbitration tribunals before any effort is made toward any other than a peaceful settlement of the question in dispute. The committee also favored the holding of the Third Hague Conference in 1915, and that it should provide for the obligatory arbitration of all international disputes which cannot be settled by any other specific methods. It also commended the statement of Right Honorable Winston Churchill to the effect that "The British Government is ready to co-operate with other governments to secure a year's suspension of a year's construction of battleships."

FARM ECONOMICS.
The agricultural colleges were called upon to establish courses in farm economics and the science of marketing farm produce, to the end that the present enormous waste due to unscientific distribution of farm products may be eliminated.

OLEO LAWS.
The grange asks and demands of congress the enactment of a law that will prevent counterfeiting and fraud by prohibiting the manufacture and sale of oleomargarine, for interstate shipment, that shall be of a color imitating that of butter of any shade of yellow.

CO-OPERATION.
A standing committee is to be appointed to investigate the plans of co-operation as carried on in various states and report with recommendations at the next annual meeting. Also each state grange shall use its influence towards securing legislation which would permit co-operative associations to be formed.

LARGE DEGREE CLASS.
The largest Seventh Degree class ever initiated at a national grange meeting was that at Manchester this year. It numbered 5,459 and required that the degree be conferred six times. The candidates were from the following states, others furnishing less than 10 each: New York 27, Connecticut 34, Rhode

Island 9, Vermont 250, Maine 510, Massachusetts 1,616, New Hampshire 2,908.

HEALTH DAY.
The grange favors the appointment, by the governors of the states, of an annual Health Day, when schools, churches, granges, clubs, Women's Christian Temperance Union, Young Men's Christian Association, and all other organizations shall work for the prevention of diseases and teach ways of healthful living.

CONSERVATION.
The National Grange is opposed to all forms of franchises for the enrichment of the few, at the expense of the people; to the elimination of the public lands, except to bona fide settlers; to the wholesale grabbing of the mineral wealth of the nation by syndicates; it favors conservation generally of all the natural resources, the public lands, water power, coal lands and mineral deposits by the federal government, not alone for the interest of this generation, but for the generations to come.

PROPORTIONAL REPRESENTATION.
The ever-living subject of representation in the National Grange according to state membership was discussed and voted down again. The resolution that was defeated was to the effect that the basis of representation in the National Grange shall be amended to provide that every state master and wife or husband, shall each have one vote on all questions. On roll call every state master and wife or husband shall have one vote each, and for each and every 10,000 members or major fraction thereof, above the first 10,000, shall have one vote each additional.

OFFICERS ELECTED.
Master, Oliver Wilson of Illinois; overseer, W. H. Vary, New York; lecturer, G. W. F. Gaunt of New Jersey; steward, F. C. Bancroft of Delaware; assistant steward, J. A. Sherwood of Connecticut; chaplain, A. P. Reardon of Kansas; treasurer, Mrs. E. S. McDowell of Massachusetts; secretary, C. M. Freeman of Ohio; gate keeper, C. L. Rice of Minnesota; Ceres, Mrs. Richard Pattee of New Hampshire; Pomona, Mrs. J. C. Ketcham of Michigan; Flora, Mrs. J. A. Pechkam of Rhode Island; lady assistant steward, Mrs. H. Harland of Idaho; member Executive Committee, A. B. Judson of Iowa.

Good Way to Turn Your Spare Time Into Cash.

KANSAS FARMER this week announces another motorcycle contest for the boys who read KANSAS FARMER. This is our third motorcycle contest, and any boy or young man in KANSAS FARMER's territory is entitled to enter the contest free of cost. We are going to give away \$500 in prizes and pay each fellow who enters the contest liberally in cash for the work he does. We find that the motorcycle is a very popular machine among the boys who read KANSAS FARMER. A full announcement of the contest is made on page 7. Turn to it and read all about the contest, and then send in your name or the name of some person whom you would like to see the owner of a motorcycle. This costs you nothing and places you or the other person under no obligation to us whatever. We will send a full description of the motorcycle and information about the prizes and the contest and our terms, and if you are satisfied then, we will be glad to have you go ahead and become one of our representatives and work for a stated amount and for the prize motorcycle or one of the other six prizes.

In the two previous contests which closed, the two winners of the motorcycles secured them for much less in subscriptions than it would take in dollars to buy either of the machines. The prizes have been won easily. During the next two months we believe a great many will have spare time before farm work begins in the spring, and if you are one with a little spare time you could do no better than to enter this contest and turn your spare time into money and win one of these big prizes. Read the announcement on the other page, then send in your name and address at once to the Contest Manager, KANSAS FARMER, 625 Jackson Street, Topeka, Kan.

Whiskey has helped man a man to get into trouble, but it never helped one to get out of trouble and never kept one out.—M. O. Journal.

BALL BAND

The "Ball-Band" Ooon Tail Knit Boot keeps winter workers' feet as warm as toast. This boot is knit—not felt, and is completely shrunk.

The patented snow excluder fits close about the top of the stout gum over and keeps out snow, dirt, grain and chaff.

"Ball-Band" Arctics—one, two and four buckles—are made of tough rubber forced into a strong duck fabric and have tops of best grade cashmerette, and linings of fine, warm wool.

Look for the Ball Band on the footwear. Write us if your dealer cannot supply you.

Write anyway for Free Illustrated Booklet.

Michigan Woolen Mfg. Co.
235 Water Street
Muskegon, Michigan
The Name That Pays Millions for Quality.

Oh, You Great Big Beautiful Doll! WONDERFUL!



Clip the Coupon below, fill in and send with only 25 cents and get all these wonderful Indian Dolls.

The most wonderful set of dolls you ever saw. Children are simply delighted with them and never grow tired or lose interest in them. Wonderful companions—three Indian Dolls, Princess Tamboon, 16 1/2 inches high, sister and brother 6 inches high, brilliantly lithographed in gorgeous arrays of many colors closely imitating the Indian leathers and real Indian costumes. No matter how many dollies the children have, any little girl or boy is sure to be delighted with these pretty, new, bright-colored dollies—they are so "different" from the ordinary doll. Children prefer them to wax or china dolls. Besides, these dolls are practically indestructible. These dolls are beautifully and brilliantly lithographed in many colors on heavy soft cloth, all ready for cutting out and stuffing. You could not give a child anything that will afford more real pleasure and happiness than a set of these Indian dolls.

To introduce KANSAS FARMER, the big agricultural and live stock weekly, into new homes, we will send you these fine dolls, and KANSAS FARMER on trial three months, for ONLY TWENTY-FIVE CENTS. Satisfaction guaranteed or money refunded. All orders promptly filled. Just fill in the coupon, cut it out and mail with 25 cents in stamps or silver, and we will send the dolls by mail postpaid at once and mail KANSAS FARMER to your address three months. Paper and dolls may be sent to different addresses if desired.

MAIL THIS COUPON TODAY.

Kansas Farmer, Topeka, Kan.

Enclosed find Twenty-Five Cents. Please mail to my address KANSAS FARMER for three months and the three Indian Dolls as per your offer.

Name.....

Post Office.....

Street or R. F. D..... State.....

Send Dolls to.....

Address.....

When writing advertisers, please mention KANSAS FARMER.

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NEBRASKA POULTRY COMPANY
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Will send plans and specifications of a pure air poultry house, free. We breed all paying varieties of poultry, and have these houses in practical use. Address **W. F. HOLCOMB, Manager.**

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For Sale—Eleven 10-pound cockerels, sired by exhibition cock, direct from William Cook & Sons. His sire won first at Madison Square Garden. Cockerels are from hens of good color and weight. Also five cockerels from Cook's \$20 setting, all \$10 each. If not satisfactory, money refunded less express. Eggs in season.

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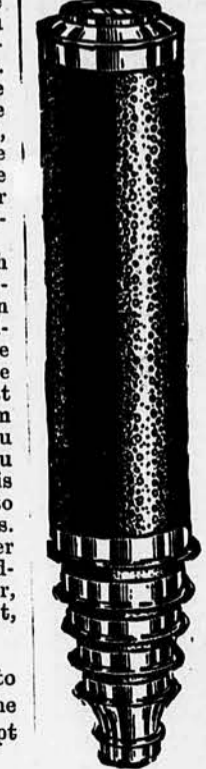
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LAND and Water Fowls. Farm-raised stock, with eggs in season. Send 2c for my valuable illustrated Descriptive Poultry Book for 1914. Write Henry Pfile, Box 634, Freeport, Ill.

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Here is a valuable, practical gift to our farmer and stockmen friends—a powerful five-section telescope, 42 inches long extended, and made by one of the world's best known manufacturers. It is built of the best materials throughout and is brass bound. With each telescope we furnish a solar eye-piece for studying the wonderful sights in the heavens. The eye-piece is a powerful magnifying glass and can be used to study insects mentioned in crop bulletins, fungus growths on plants, and for a sun glass.

Makes Distant Objects Seem Near.
The lenses in these telescopes are made by experts and are carefully adjusted. Objects can be seen many miles away that are indistinct to the naked eye. Farmers and ranchmen find these telescopes very valuable in watching stock or people 5 or 10 miles away. By watching the clouds with this telescope some can tell the approach of a storm early and prepare for it.

Our Great Offer.
We will send one of these great telescopes free and prepaid to all who send \$1.50 to pay for one two-year subscription to Kansas Farmer, or for one renewal and one new subscription each for one year, both for \$1.50. We will refund your money if you are not entirely satisfied. All orders filled promptly. Address **KANSAS FARMER, Topeka, Kansas.**



Long Distance Weather Forecasting

By S. D. FLORA, Observer, U. S. Weather Bureau

If, in addition to forecasting the weather from day to day the weather bureau were able to forecast, at least in a general way, the character of the weather that would occur during the coming season...

to prove he can hit off the weather exactly. It has been my opportunity to check up the forecasts of a great many of these alleged forecasters who claim to know so much more about the weather of the future...

Notwithstanding this well known fact there are publications that regularly print articles from men who claim to have devised "on their own hook" a wonderful "system" for accomplishing what no weather bureau or observatory of any government of the world will undertake to do...

When these so-called forecasts have been checked up with the actual weather records and the "hits" of which they talk so much in their testimonials have been balanced against the times they missed it, of which they are careful never to speak, the net result has been worse than the average farmer, at least of the intelligent class that reads KANSAS FARMER, could have done for himself.

Long experience has convinced us that farmers, as a class, are above the average in intelligence and yet publications that would not for a minute try to palm off these clumsy attempts at weather forecasting on their city readers, seem to be under the delusion that the farmers have not advanced to the point where they demand scientific intelligence.

Before weather records became so numerous and so well and carefully studied there was a general belief that the weather repeats itself in cycles and that with a good record of past weather conditions it would be possible to forecast weather a year, or even many years, ahead.

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Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items or stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. Your advertisement here reaches over 300,000 readers for 4 cents a word per week. No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. Terms, always cash with order.

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MEN WANTED TO LEARN BARBER TRADE.—Term not limited. Tools free. Call or write, Topeka Barber College, 327 Kansas Ave., Topeka, Kan.
WANTED—MEN AND WOMEN FOR government positions. Examinations soon. I conducted government examinations. Trial examination free. Write Oaxment, 44F, St. Louis.
MEN FOR ELECTRIC RAILWAY MOTORMEN and conductors. Fine opportunity. About \$80 monthly. Experience unnecessary. No strikes. State age. Address Box M, care Kansas Farmer.
WANTED—AMBITIOUS MEN FOR GOVERNMENT positions in railway mail and post office service. Large pay. Short hours. Write for catalog Standard Correspondence School, Minneapolis, Minn.

- PARCEL POST AND INCOME TAX mean hundreds government jobs now available. "Pull" unnecessary. \$65 to \$150 month. Write immediately for free list of positions available. Franklin Institute, Dept. B82, Rochester, N. Y.
FREE ILLUSTRATED BOOK TELLS OF about 300,000 protected positions in U. S. service. Thousands of vacancies every year. There is a big chance here for you, sure and generous pay, lifetime employment. Just ask for booklet S-808. No obligation. Earl Hopkins, Washington, D. C.

REAL ESTATE.

- FOR TRADE—QUARTER SECTION TIMBER land for quarter section land in Kansas. Martha Travis, Echo, Oregon.
FOR SALE OR TRADE—FINE IMPROVED bottom farms close to town; high school free. J. H. King, Cawker City, Kan.
WANTED—TO HEAR FROM OWNER who has good farm for sale. Send description and price. Northwestern Business Agency, Minneapolis, Minn.

- WRITE FOR BOOKLET OF IRRIGATED farms and truck patches. No failures. Three miles of water. E. C. Stovall, owner, Graham, Texas.
DELAWARE IS A GOOD STATE TO live in. Land is good for fruits, grain and live stock. Free pamphlet. State Board of Agriculture, Dover, Delaware.
80 ACRES WELL IMPROVED, 6 MILES southeast Topeka, 3 miles Tecumseh. Good soil and water, all kinds fruit. Price, \$10,000. Part time. No trades. C. A. Woodworth, Tecumseh, Kansas.

- OFFICIAL BULLETINS RELATING TO the agricultural opportunities of Wisconsin may be had by addressing Wisconsin State Board of Immigration, Capitol 135, Madison, Wis.
WANTED—IMPROVED FARMS AND wild lands. Best system for quick results. Full particulars and magazine free. Don't pay big commissions. Western Sales Agency, Minneapolis, Minn.

- FOR SALE—ELEVEN HUNDRED ACRES unimproved Northern Arkansas. Fine white oak timber. Seven hundred acres suitable for cultivation. Will make fine stock farm. Thirteen dollars per acre. Good terms. Box 15, Ozark, Ark.

- FOR SALE—AN 84-ACRE FARM 6 1/2 miles northeast of Abilene, Kan. 23 acres in pasture, balance in cultivated land and alfalfa. Barn built three years ago cost \$1,200; good 7-room dwelling built during the last five years. Price, \$8,000, with payment of \$2,000 in cash, balance for seven years at 6 per cent. No trade will be considered. C. C. Wyandt, Abilene, Kan.

MISCELLANEOUS.

- LEGAL ADVICE, ANY SUBJECT, \$1.00. The Law Bureau, Box 917-C, Wichita, Kan.
CLEANING, PRESSING, DYEING WORK guaranteed. Manhattan Cleaners, 609 Jackson, Topeka.

- WANTED—JOB ON FARM BY EXPERIENCED farm hand, single. State wages in first letter. Address Box 255, Burrton, Kan.
SHORTHAND—20 LESSONS FREE, including corrections and suggestions. The Dougherty Business College, Topeka.
GROCERY AND MEAT MARKET DOING \$5,000 per month. Best town in Kansas. Cash or trade. Lock Box 71, Manhattan, Kan.

- WANTED—COMMUNICATION WITH 500 farmers wanting to buy Silver King seed corn that will grow, direct from their neighbor farmer. H. H. Meyer, Fontanelle, Neb.
WANTED—10,000 PERSONS TO SEND 10 cents for a package of Little Rhoda bluing, bleaches as well as blues your washing. Address Household Economics, 8th and S. Market Sts., Canton, Ohio.
TYPEWRITERS. ALL MAKES, ALL prices. Guaranteed same as new. Will ship for trial. Crane & Co., Topeka, Kan. "45 years in business." Write for Catalog "G."
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CATTLE.

- REGISTERED JERSEY CATTLE. C. S. Hart & Sons, Milan, Mo.
FOR SALE—SHORTHORN BULLS, 6 TO 11 months old. J. Hammerli, Oak Hill, Kan.
GUERNSEYS—REGISTERED BULL calves. R. C. Kruger, Burlington, Kan.
ABERDEEN ANGUS BULLS. TWO pure-bred bulls 18 months old. Alox Spang, Chanute, Kan.
GRADE HOLSTEIN CALVES, BOTH sexes, for sale. Arnold & Brady, Manhattan, Kan.
WANTED—TO BUY SOME HIGH-GRADE Holstein heifers, to freshen in March and April. A. W. Garvin, Lawrence, Kan.
FOR SALE—REGISTERED HOLSTEIN bulls. Smith & Hughes, Topeka, Kan., Route 2.
THREE RED POLLED YEARLING bulls, the best of breeding and good individuals. J. E. Davis, Fairview, Kan.
HOLSTEIN CALVES, EITHER SEX, beautifully marked. \$20.00 each, crated. Edgewood Farm, Whitewater, Wis.
TWO REGISTERED GUERNSEY BULLS, one grade bull of serviceable age; May Rose breeding, for sale. Also a few bred heifers. C. A. Mountain, West Liberty, Iowa.
FOR SALE—BERP'S TROGAN, 15 months old. Registered Holstein bulls, ready for service. Price, \$110. Jack Hamnel, 215 Adams, Topeka.

- FOR SALE—HOLSTEIN GRADES, YEARLINGS, and bred two-year-olds, due to freshen this spring. Pure-bred Holstein bulls of serviceable age. John Gates, Fort Atkinson, Wis.
FOR SALE—TWO CHOICE COMING 2-year-old high-grade Holstein heifers, and three cows, all coming fresh to service of registered bulls. W. B. Van Horn, Overbrook, Kan.

- REGISTERED HOLSTEIN BULL calves Jan. 20, 1913. Sire Prince Mercedes Wayne of Deerfield. Seven nearest dams average 25.51 pounds butter. Dam Mercedes, Tally Geneva. Price, \$75.00. For full particulars address Budd Lantz, Madison, Kansas.
FOR SALE—AT ONCE, 12 REGISTERED Guernsey heifers, 6 to 12 months old; four registered cows, 4 to 6 years old. Also a few high-class good Guernsey females, priced right. Best of breeding. Hillcrest Farm, A. L. Hyzer, Mgr., Route 2, Vail Junction, Iowa.

HORSES AND MULES

- FOR SALE—TWO EXTRA GOOD young jacks, three and five years. W. J. Strong, Moran, Kan.
SHETLAND PONIES FOR SALE, MARES, colts and geldings, all ages and sizes. Write your wants. C. R. Clemons, Coffeyville, Kan.
FOR SALE—AN EXCEPTIONALLY good imported Percheron stallion, black, 9 years old, guaranteed O. K. every way. D. B. Jenkins, Jewell, Kan.

TREES, SEEDS AND PLANTS.

- SEED CORN SUITABLE FOR KANSAS soils. John Dunlap, Williamsport, Ohio.
WINFIELD RELIABLE TREES, DIRECT to planter at wholesale prices. Fruit book free. Cooper & Rogers, Winfield, Kan.
GOOD WHITE BLOOM SWEET CLOVER seed and alfalfa seed for sale. Geo. Bowman, Logan, Kan.
EXCELLENT BOONE COUNTY WHITE seed corn \$2.25 bushel, graded. J. B. Hunt, Oswego, Kan.

- SWEET CLOVER—GENUINE WHITE blossom—grows anywhere. Write for free sample of new crop seed and latest prices. Barteldes Seed Co., 800 Mass. St., Lawrence, Kansas.

DOGS.

- FOR SALE—TAN COLORED SCOTCH Collie pups. Also some fall and summer Poland China pigs. J. H. Becser, Newton, Kan.

HOGS.

- WANTED—TO BUY ONE-YEAR-OLD big-type Poland China male hogs, with pedigree. Mention weights and price. Jacob H. Hauptle, Route 2, Glen Elder, Kan.

TOBACCO.

- TOBACCO—SEND \$3.00 AND GET 10 pounds of fine Kentucky Chewing or Smoking Tobacco, direct from the farm. C. D. Easton, Easton, Ky.
TOBACCO—I HAVE THOUSANDS OF pounds of fine old Kentucky chewing or smoking tobacco, 30 cents per pound, post-paid. Chas. T. Daniel, Owensboro, Ky.

VIOLINS.

- GOOD VIOLIN FOR SALE CHEAP. Excellent toned. Could send on trial. Write Miss Bertha W. Mardis, Route 5, Rosedale, Kan.

SITUATION WANTED.

- EXPERIENCED MAN, SINGLE, AGED 41, wants work on farm. Address Theo C. Miller, Salina, Kan.
MAN PAST 40 WANTS SITUATION ON farm for self and wife. Capable of doing all kinds farm or ranch work. George R. Harwood, Scranton, Kan.

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Ikey Buyer: Be a "Wise Guy." Buy "Show Horses" of Iams, who has crossed the ocean 50 times for horses and sold 5505 Registered Horses. Iams' 32 years of success in the Horse Business make him a Safe Man to do business with at Special Hard Time Prices. Guarantee backed by "Million Dollars."



"Iams' Horse Show" and get his "Bargain Prices." Iams' Kind are all "Show Horses." Only Big Drafters. No Culls.

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and Paris and Belgian winners are the "Town Talk," Iams' "Swell Horses" and "Hard Time" prices are "business propositions" that make the "electric wheels" work fast under a "wise buyer's hat." Ikey, why worry? "Iams' selling clothes" fit all buyers. Iams has

60 - PERCHERON AND BELGIAN

Stallions and Mares, 2 to 6 years old, weight 1,700 to 2,300 pounds. All registered, approved, stamped and inspected by Governments of France and U. S., and Certificates "Stamped O. K." All sound, "Bell Ringers," "Iams Kind" need no State Law to make "them sound." Iams sells "winners."

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(Few higher.) Registered mares, \$700 and \$1,000. Terms, cash or one year's time at 8%. One year's time and security at 6%. \$100 less price for cash than time. Iams pays freight and buyer's fare. Gives 60% breeding guarantee. Backed by "Million Dollars." Can place \$1,500 insurance. Iams' 1,500 Show stallions are better than those sold elsewhere at \$5,000 to \$10,000. Iams backs up ads with a \$500 guarantee that you find horses as represented and at less price for "Toppers" than elsewhere. Never were such "big show horses" offered at such bargain prices. Write for "Eye Opener" and Horse Catalog. It has a \$1,000 bargain on every page. References: First Natl., Omaha Natl. Bank, Omaha, and Citizens State Bank, St. Paul, Neb.

ST. PAUL, NEB.

FIELD NOTES

Buy Jacks at Home.

If in the market for a first class jack or jennet, why not visit H. M. Roller & Son, at their place in the edge of Circleville, Jackson County, Kansas? The Rollers have bred jacks for 30 years, and have about 14 head of extra big, stylish, heavy-boned fellows for sale. Their advertisement will be found in the Jackson County section. The Rollers are straightforward business men and it will be found a pleasure to deal with them.

Banner Stock Farm.

Bruce Saunders, proprietor of the Banner Stock Farm near Holton, Kan., is one of the progressive breeders of Percherons and jacks. Mr. Saunders has a few good jacks for sale, also a standard-bred trotting stallion. Write or, if possible, visit him. He is president of the Jackson County Breeders' Association and his card appears regularly in that section.

Lewis J. Cox, of Concordia, Kansas, will hold a closing out sale of stallions and jacks during the first week in February. His offering will consist of draft, coach and standard-bred stallions, all guaranteed to be right in every way; also a fine bunch of jacks ranging from two to nine years old and weighing from 850 to 1,000 pounds. Watch for further announcement of this sale in Kansas Farmer.

Kansas Farmer, Topeka, Kan. Dear Sirs: Just a word to let you know that our ad in your paper is bringing in results. We have made a good number of sales through it. The Durocs are doing fine. We are all sold out of spring boars except one young hard boar, a grandson of Ohio Chief which we will sell as we are through using him. We have about a dozen extra choice spring gilts left. They are fine ones and would be hard to beat. They are bred to a choice son of B. & C.'s Col., a son of the grand champion, Good Enuff Again King, and a grandson of old Ohio Chief, for April farrow. These gilts will do justice to anyone's herd. We have recently added two choice yearling sows sired by Good Enuff Again King and from Burketta and Burketta III, to our herd of brood sows. We shipped two gilts up to the Old Soldier's Home at Leavenworth, yesterday as a result of our ad in your paper.—John A. Reed, Lyons, Kansas, December 25, 1913.

Morgan Stallions and Mule Jack for Sale. Attention is called to the advertisement of Charles J. Beck, of Chesterfield, Mo., who is offering the following stock at sacrifice prices: Bishop Monmore, chestnut, 15½ hands, and will weigh about 1,000 pounds. He is a real show horse and has several blue ribbons to his credit. His foals are large and have style and sell well. Bishop is bred for a great sire, and he is one. Price, \$500. Major Monmore 5897, chestnut, 15½ hands, and weighs 1,000 pounds. Here is a handsome and good-gaited Morgan, one that will make the breed popular wherever he stands. He sires just the type of foals the market demands, and gets them large and smooth. He is bred like Bishop Monmore, with an additional cross to Vivace.

New Importation of Horses are the "Big Noise." The "Big Black Boys" and "Hard Time Prices" make "Ikey Buyers" "Sit Up and Take Notice" and Buy Horses of Iams.

The "Peaches and Cream" Horse Importer is "up to the minute," an Expert Judge and a "Close Buyer." His 1914 Importation and his Home Bred

Percherons and Belgians are the Classiest Bunch of big-boned, real drafters of quality and finish Iams has imported or bred, and will be sold at Democratic

"Let Live Prices." Owing to war scare, poor crops in Europe, "Iams' Cash" and bought in November and December when Prices are Lowest, Iams made a "Killing" and bought a top bunch of Show

and Business Horses at Bargain Prices. Ikey, shy your "Progressive" Hat into the ring, buy a ticket to Iams' Horse town, and see

POLAND CHINA Bred Sow Sale

South Mound, Kansas
Tuesday Jan. 20, 1914

47 HEAD THE TOPS FROM 100 HEAD 47

36 LARGE YEARLING GILTS.

11 TRIED SOWS THAT HAVE RAISED LITTERS.

The Gilts are sired by Expansion Ex. by Big Logan Ex., Missouri Metal, Giant Mogul, Standard Wonder, Topsy's Chief, Orphan Chief, Big Lige, Dan Hadley, and other good boars, and are bred to O. K. Lad by Pawnee Lad.

The Sows are all from the best families of large-type breeding. This is a clean lot, and in good condition.

Send for catalog and come to my sale. Everybody invited to attend or send a bid to O. W. Devine, representing Kansas Farmer, in my care.

Roy Johnston, South Mound, Kansas

MORGAN STALLIONS AT BARGAIN PRICES

On Account of other business must sacrifice
This High Class Stock to Close out Quick

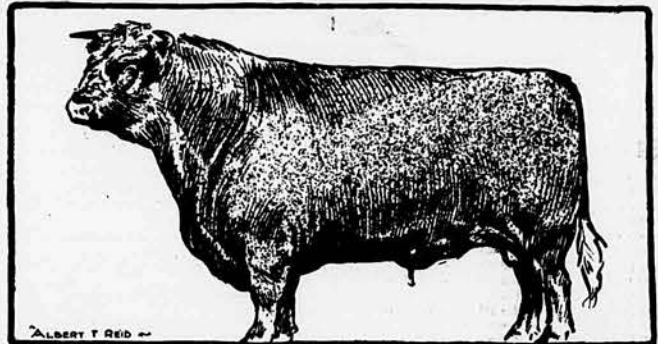
BISHOP MONMORE—A 15½ hands 1,000-pound chestnut, a real show horse with several ribbons to his credit. Bred for a great sire and is one. Price, \$500.00.

MAJOR MONMORE 5897—A chestnut, 15½ hands, 1,000 pounds, good gaited Morgan that will make the breed popular wherever he stands. Sires the type the market demands. Price, \$400.00.

STORM CLOUD 6860—Chestnut, 15½ hands, will weigh 1,100 pounds when matured. A brother to Gov. Nimbus that won nine blue ribbons in nine shows. He is a well bred Morgan and a prospect for a great sire. Price, \$400.00.

Also the great mule jack, BARNEY 2D, black, 13½ hands with lots of weight. Sires large mules with plenty of style and bone. Breeders will find this stock priced far below its actual worth.

CHAS. J. BECK, CHESTERFIELD, MO.



THE BEST LIVE STOCK CUTS

WE HAVE THE BEST STAFF OF ARTISTS TO BE FOUND ANYWHERE IN THE WEST AND ARE THEREFORE PREPARED TO FURNISH YOU WITH THE BEST CUTS OF YOUR STOCK

KANSAS FARMER - TOPEKA

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WHEN your fall work is done, if you want work for fall and winter, write to the Employment and Agency Department of KANSAS FARMER, 625 Jackson Street, Topeka, Kansas. A responsible man, with rig preferred, is wanted in each Kansas county. Good pay and permanent positions are offered.

He is just broke, but has never had much work. He is sound except one hip is slightly down. This is hardly ever noticed. He is thin in flesh because he was turned out last summer and left out late. He is exceptionally kind and hearty. Price, \$400. Storm Cloud 6860, chestnut, 15½ hands and should weigh about 1,100 pounds when matured. He is just being broke to drive, and has taken to work well. He is brother to Gov. Nimbus that won nine blue ribbons in nine shows. Here is a well-bred Morgan and he should make a great sire. He is a foal of 1910 and has no colts to show. He was bred to but one mare in 1913. Just right to do a good business in 1914. Price, \$400. Barney 2d, black jack, 13½ hands, with lots of weight and style. Barney sires fine large mules with plenty of style and bone. His mules are smooth and muscular. Price, \$250.

When writing advertisers, please mention KANSAS FARMER.

Pigs Given to School.

The Portland Union Stock Yards Company has recently made a proposition to furnish as a gift a pig to every city and country school in the state of Oregon and Washington. The only condition attached to the gift is that each school accepting the pig keep an accurate record of the kind, quality and cost of the feed consumed.

Apparently the purpose of this distribution of pigs is to encourage the study of live stock husbandry in the schools of the two states. It is expected that the pigs will be sold when they reach a marketable age and the Stock Yards Company agrees to buy them back at market prices.

Feed Horses Silage Cautiously.

Owing to the great shortage of feed which exists and the fact that there will not be wheat pasture available much longer makes it likely that those having silage will use it as a feed for their horses. While silage has been used successfully as a ration by a good many farmers, we would again caution those using it to be careful to give the horses only perfectly good, sweet silage. A great deal of moldy feed of various kinds must necessarily be used in wintering stock but the horses should by all means be fed grain roughage. The horses should never be fed such heavy quality of silage as is given to cattle. Where horses are performing work silage cannot be used in such large quantities as the feeding of idle horses.



A Field Full of Crops Instead of Stumps



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This Great
FREE BOOK

\$100.00 for Every \$1.00 if You Pull Out the Stumps with the **HERCULES All-Steel Triple Power Stump Puller**

Let me *prove* it to you. Just mail me your name and address so I can send you my fine book, free. Use the coupon—or just a postal. On page 45 of my book it's all figured out for you in black and white. See how much your loafer stump land—*robber* land, is costing you. See how much it decreases the value of your land. See how it keeps you from farming *all the acres you pay taxes for*. Face the facts—and know how *vitaly important* it is to you to pull out every stump if you want to cash in on all your possibilities—if you want to get all the money you *should* get from your land. My book *proves* that by pulling the stumps, you can

Every Casting Guaranteed for 3 Years Against Breakage from Any Cause, Flaw or No Flaw



Make \$1281 Profit the First Year on 40 Acres and \$750.00 Profit Every Year After

The estimate is low. You can do even better. Remember, you plant on virgin soil when you plant where stumps stood.

part and we will replace it free, whether the break was your fault or the fault of too great a strain or a flaw or *anything*. Even with the great power and strength of the Hercules, it is 60% lighter than other pullers.



An Acre of Stumps Pulled in a Day

That's what *you* can do with a Hercules. And you won't have to pass by any of them. Big or small, they *can't* resist the terrific pull of the triple power. And the Hercules won't break. It gives a greater pull than a locomotive—yet the strain is so scientifically distributed over the All-Steel Hercules that we *can* and *do* guarantee it against breakage for 3 years.

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