

KANSAS FARMER

For the improvement



of the Farm and Home

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BOYS SHOW PIGS AT FAIR

State Pig Club Members Rank High in Pork Production

IN NUMBERS the special show made at the Kansas Free Fair this year by the state pig club members was smaller than a year ago, but in quality of pigs shown it was far better than the show of last year. In conducting these clubs, the membership of which runs into the hundreds, it has been the policy of Paul Imel, the state leader, to keep everlasting at the job of teaching club members up to date and progressive methods of pork production. The work does not end with enrolling a club and getting the members lined up for a pig or a sow and litter. Club work among boys and girls has for its main purpose the teaching of responsibility and the arousing of genuine interest in the appointed task. Through meetings, judging classes, picnics, and other forms of co-operative work the leaders strive to keep up the interest of the boys and girls enrolling.

The excellence of the pigs shown at the big fair in the special club classifications was proof of the thorough training these youngsters have been receiving in selecting and handling pigs. At Topeka the pig club show was housed in a tent, and Mr. Imel was put in charge as superintendent under the supervision of the general superintendent of hogs. The state pig club pigs are fed for market, and only sows or barrows could be entered in the competition. A class was provided for those coming from within fifty miles of Topeka, and another class for those coming from a distance greater than fifty miles. All breeds were shown together in the judging for fat hogs.

E. F. Ferrin, swine specialist of the Kansas Experiment Station at Manhattan, placed the awards.

In the fat hog judging of the state pig club entries the outstanding feature of the show was a pair of Duroc Jersey pigs not quite six months old entered by Paul and Chester Anderson of Ozawie. The boys and their pigs are shown in the illustration on this page. These pigs must have been bred right to finish so smoothly and at such an early age. The boys who fed them most certainly proved themselves skillful feeders and caretakers or the pigs would not have been shown in such fine condition however well they might have been bred. The pigs averaged 275 pounds in weight, and were placed first and second, Chester being the owner of the one given the blue ribbon. A Poland China pig owned and exhibited by Clarence Barnett of Denison stood third in this class. The Duroc Jersey partisans may consider this ranking as proof positive of the good qualities of their chosen breed, but it would hardly be true to assume that the Poland China as a breed was defeated because in this particular ring the two Duroc Jerseys stood at the head.

The remainder of the awards in the group from within the fifty miles are as follows: fourth, Cleason Freeman of McLouth on a Poland China; fifth, Clyde Smith of Ozawie on a Chester White; sixth, Elwyn Engler of Topeka on a Poland China, and seventh, Fred True of Perry on a Duroc Jersey. The first prize was \$12 in cash, and the remainder

of the prizes ranged on down from this to \$5 which went to the seventh.

In the group coming from a distance greater than fifty miles from Topeka, John Blackshere of Elmdale won first on a Duroc Jersey, and Harriet, his sister, second on a litter mate. John is shown in the cut with the first and second prize pigs in this group. Horace Elliott of Louisburg won third on a Duroc Jersey, William Pherigo of Bazaar fourth on a Poland China, Edith Bechlinger fifth on a Poland China, Norman Jones and Edward Hartley of Manhattan sixth and seventh on Spotted Poland Chinas, and Leslie McElfresh of Cottonwood Falls eighth on a Duroc Jersey. In this classification the first prize was \$15 and the eighth \$5, the other prizes ranging between these two amounts.

The American Poland China Record Association had offered prizes amounting to \$50 and a bronze medal on Poland China pigs shown by state pig club members, so a special Poland China show was staged after the awards had been made in the fair classification. In this more consideration was given to breed type. The awards are as follows: first, Clarence Barnett, Denison; second, Clawson Freeman, McLouth; third, Willard McClelland; fourth, Paul Dustin, Berryton; fifth, Elwyn Engler, Topeka; sixth, Edith Bechlinger, Cottonwood Falls; seventh, William Pherigo, Bazaar; eighth, Norman Jones, Manhattan; ninth, Keith Van Horn, Topeka, and tenth, Warren Rogers, Willard.

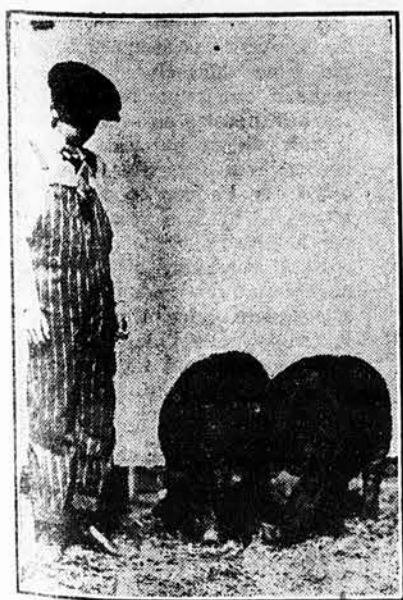
Only a few pigs were shown in the junior swine classification. This de-

partment was open to boys and girls without reference to club membership. The pigs were housed in the same tent with the state pig club exhibits and were under Mr. Imel's supervision.

The boys and girls and their leaders may well be proud of the splendid showing of pigs made at the Topeka fair, and the hundreds of pig club members over the state who did not send pigs will be inspired to better work by learning of the achievements of those who entered the competition and demonstrated the results of pig club work to the enormous crowds of people passing through the tent during fair week.

At Hutchinson the week following the fair at Topeka in addition to the showing of pigs a contest in stock judging was conducted. This was opened to teams of three regularly enrolled club boys from each of five counties. Of the Shawnee County boys showing pigs at Topeka Warren Rogers of Willard, Elwyn Engler, Topeka, and Clarence Hershey, Topeka, were selected as the team to compete in the state judging contest at Hutchinson. F. O. Blecha, the agricultural agent of Shawnee County, went with the boys. Cash prizes amounting to \$50 are to be awarded the five competing teams.

Make a solution of one ounce of water, two ounces of glycerine and one dram of salt. Pour this mixture upon a piece of gauze and wipe the glass of the windshield with all the strokes downward. No snow or moisture will then stick to the glass.



JOHN BLACKSHERE, ELMDALE, SHOWING HIS OWN AND HIS SISTER'S PRIZE PIG.



These two pigs are the first and second prize winners of the class within fifty miles of Topeka and were fitted and shown by Paul and Chester Anderson. They averaged 275 pounds in weight. Paul Imel, state pig club leader, was busy posing the pigs for the picture when the camera clicked.



PAUL AND CHESTER ANDERSON, PRIZE WINNERS AT KANSAS FREE FAIR, TOPEKA.



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MECHANICS ON THE FARM

Items of Interest About Automobiles, Engines, Tractors and Motorcycles

Farm Water Supply System

TWO systems of water supply for the farm residence are described by Miriam M. Haynes of the Colorado Agricultural College. In the system called the "hydro-pneumatic" an air tight steel tank, it is used to store the water and to force it through the pipes. The principle involved is simply this: Air is elastic and may be compressed. Water is not elastic and cannot be compressed. When water is pumped into a tank, the air which is already there is compressed and exerts a back pressure upon the water. This back pressure of the compressed air is used to force the water through the pipes. The inlet and outlet pipes are placed at or near the bottom of the tank so that the water may be expelled without allowing any of the air to escape. By putting in enough water the pressure may easily be raised to form forty to sixty pounds which is plenty for farm conditions. As the water is discharged from the tank, the pressure drops down, and so in order to discharge all of the water from the tank it is necessary to put in some initial air pressure before any water is put in. This air may be put in by a combination air and water pump, or by an extra air pump. A good rule to follow is to have twenty-five pounds pressure when the tank is half full of water. The working capacity of such a tank is about two-thirds of its total capacity. The total equipment for this kind of a water system consists of an air tight steel tank, a force pump and necessary pipes and connections. The pump may be operated by hand, or as in the case of a larger system, by a gasoline engine. This kind of a water system is very reliable. The tank can be put down in the basement or buried under the ground where it is kept cool and protected from frost. The pressure tanks are expensive and this kind of a water system is more expensive than the gravity type in general. It requires considerable attention to operate a system of this kind, but with proper care it gives good satisfaction.

Auto-pneumatic system is the only water system which delivers water under pressure without water storage. A supply of compressed air is held in a steel tank. From the tank it is piped to the automatic air pump down in the well. Here the air pressure does its work and forces the water to any point desired. The automatic air pump operates only when the faucet is opened and water is wanted. The compressed air after being used is allowed to escape up through the water in the well.

This system is ideal in some respects: It takes the fresh water from the well and delivers it direct to the faucet. Then again there is no danger from frozen pipes. The objections to this system are, first, it is a complicated system and should anything go wrong with the pumps, it is hard to repair; second, it is not adapted to all kinds of wells. There must be a good clear, plentiful supply of water without sand or grit in it. It is also necessary to have at least six feet of water over the pump to make it work properly. This pump is limited to lifts of 100 feet or to a working pressure of 65 pounds. This is probably the most expensive of all the water systems, but where conditions are right, it will give excellent satisfaction.

Motor Truck Accessory

Problems having to do with the use of the motor truck in soft going, on the farm and on the road, have been difficult of solution. An eastern motor truck company has just announced an attachment or accessory known as ground grippers, designed to promote the wider

use of the motor truck in direct transportation from the fields to the market. This device requires little loss of time for application to the wheels and need not be removed when the truck passes from soft to hard ground. The grippers are so placed upon the wheels that they do not come in contact with hard going and do not injure the roads. They grip as soon as the wheels bear down into soft material.

Ground grippers are wide iron bands with metal flanges bolted diagonally across the outside of the band. These flanges are similar to those found on tractor wheels. They are attached to the wheel of the truck in a simple way requiring only twenty minutes to place all four bands in position for work. There are four twelve-inch bolts with special wide metal bands. These bolts are attached to two L-shaped metal strips, which are held in position by two spokes. The bolt from these strips is attached by nut and washer to the band and quickly tightened.

Thorough tests have been made with the ground grippers for some time. On freshly ploughed fields the grippers have enabled the transportation of heavy loads and have given the utmost satisfaction. The farmer, by using the ground grippers, has been able to dispense with the necessity of using horses to haul four and five loads from the field to make up the truck load on the harder going. He has been able to transport fertilizer to the field direct and distribute it without loss of time reloading to horse-drawn wagons at the field. Harvesting of crops has been simplified, the truck passing steadily along the fields while being loaded. Passing from the field to the road the grippers are left in position as the flanges are so placed that they clear the road bed and cause no injury to it. In event of heavy going on the road the flanges immediately take hold and are of assistance again in reaching the market.

One farmer on Long Island, now using the ground grippers, formerly required a team of horses making five trips to load his two ton truck. With the grippers he saved much time previously lost and the complete saving was made more noteworthy through the saving of horses in the work.

Buying Used Car

It is not safe to buy a second-hand car from a stranger unless he is properly identified to you.

There is a state law governing this matter which is designed to protect people from themselves. It is meant to make it impossible for a motor thief to market a stolen car. The statute makes it unlawful to purchase a motor vehicle except from a regular dealer unless the owner is known to the purchaser or identified by two persons known to the purchaser.

Each purchaser of a used car must notify the county authorities and give a complete description of the machine. For violation of this state law a penalty of both fine and imprisonment is provided. The fine is \$25 to \$500 and the imprisonment from thirty to ninety days.

It is a misdemeanor to run a car on which the engine number has been changed. It is customary for thieves to chisel out the old number and create a new one.

It is safe to say that if an engine number has been changed the car has been stolen. If people buying used cars would co-operate with the authorities everywhere a lot of this thievery would stop. Automobiles would not be stolen if there was no market for them.

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STATE FAIR CLOSES

A most successful exposition of the many resources of Kansas was made at Hutchinson last week. While there was some rainy weather, it did not seem to affect the attendance, for record-breaking crowds passed through the gates during the week. The various improvements in the way of new buildings were most favorably commented on by those in attendance. An exhibit of outstanding excellence and one which attracted a great deal of attention was that made by the beemen. The new live stock judging pavilion was not finished and could not be used, but the weather was favorable for showing in the open so no inconvenience was suffered because of the delay in getting the building completed in time for this year's fair. Exhibitors and visitors can look forward to having this splendid building all ready for use another year. It will greatly add to the educational value of the live stock show.

SHAWNEE COUNTY BOYS WIN

The Shawnee County boys' pig club judging team, consisting of Elwyn Engler and Clarence Hershey of Topeka and Warren Rodgers of Willard, won the club boys' judging contest at the Kansas State Fair in Hutchinson last week. The teams were picked on the basis of the work they had been doing as pig club members in their home counties. According to the rules of the state pig club leader, the entries were restricted to the five counties making the best showing. Only four counties sent teams. The boys judged four classes of live stock—hogs, poultry, beef cattle, and horses—and were graded on their placings and the reasons given. The official ranking of the classes judged was made by Prof. F. W. Bell of the Kansas Agricultural College. The first prize was fifteen dollars in cash. The standing of the teams was as follows: First, Shawnee County; second, Doniphan County; third, Lyon County; and fourth, Chase County.

BENEFITS OF DAIRY SHOW

Dairying is destined to be one of the important live stock industries of Kansas. The dairymen of the state have found that visits to other states more advanced in this branch of animal industry are most profitable and instructive. Those making such visits have always come back with fresh enthusiasm and full of new ideas.

During the last year and a half two particularly successful dairy tours have been made by Kansas dairymen into the dairy districts of other states. In 1898 seventy-five farmers and city business men from Lyon County spent several days visiting farms in Wisconsin, and only recently 160 farmers from Bourbon County spent a week visiting dairy farms in Iowa, Illinois, and Wisconsin.

Professor Fitch stated recently that his conversations with the men who have made these trips have convinced him that this is one of the best forms of dairy extension. In practically every instance such trips have meant more and better dairy cows for the community from which the visiting dairymen came. As a result of the two trips mentioned above, ten carloads of dairy cattle have been brought into the two counties. Every man interviewed who has made a trip of this kind reports that he has felt amply repaid for the time and money expended. A number of other dairy communities are now considering similar dairy tours. Dairymen should

not overlook the value of a trip to the National Dairy Show which is to be held in Chicago October 6 to 12. It will be a great inspiration to anyone interested in dairying to attend such a showing of all the appliances of the dairy industry, including herds of all the dairy breeds and all kinds of dairy products. A man attending such a show will come home thinking more of his own cattle and with more enthusiasm for his work as a dairyman.

HERBERT HOOVER ON SOCIALISM

That socialism as it is being tried out in Europe is proving itself absolutely incapable of meeting the situation is the judgment of Herbert Hoover, who has recently returned to this country. Mr. Hoover has had unusual opportunities for learning what is going on in the nations of the old world. In an address made recently before the American Institute of Mining and Metallurgical Engineers he practically declared that socialism in Europe was bankrupt. In speaking of the impressions he has gained in his service abroad since the armistice, he said in part:

"Two convictions are dominant in my mind. The first comes from contact with stupendous social ferment and revolution in which Europe is attempting to find solution for all its social ills by practical experiments in socialism. My conviction is that this whole philosophy

is bankrupting itself from a starting quarter in the extraordinary lowering of productivity of industrial commodities to a point that, until the recent realization of this bankruptcy, was below the necessity for continued existence of their millions of people.

"My second conviction is older but has been greatly hardened, and that is a greater appreciation of the enormous distance that we of America have grown away from Europe in the century and a half of our national existence, in our outlook on life, our relations toward our neighbors and our social and political ideals. The supreme importance of this Americanism neither permits us to allow the use of this community for experiment in social diseases, nor does it permit us to abandon the moral leadership we have undertaken of restoring order in the world.

"We require only a superficial survey to see that the outstanding and startling economic phenomenon of Europe today is its demoralized industrial production. Of the 450,000,000 people in Europe, a rough estimate would indicate that they are at least 100,000,000 greater than could be supported on the basis of production, which has never before reached so low an ebb. Prior to the war this population managed to produce from year to year but a trifling margin of commodities over the necessary consumption and to exchange for

supplies from abroad. The productivity of Europe in pre-war times had behind it the intensive stimulus of a high state of economic discipline, the density of populations at all times responded closely to the resulting volume of production. During the war the intensive organization of economy and consumption, the patriotic stimulus to greater exertion and the addition of women to productive labor, partially balanced the division of man-power to war and munitions. Both the pre-war and the war impulses have now been lost and the productivity of Europe has steadily decreased since the armistice."

INDUSTRIAL CONFERENCE

Only three delegates representing agriculture have been allowed in the big national conference of wage earners and employers called by President Wilson to meet in Washington October 6. This is not adequate representation for the great basic industry of agriculture. Labor has been allowed fifteen delegates. Agriculture should have at least as many representatives as labor. An industrial conference overlooking the important place of agriculture in the reconstruction period before us is to that extent non-representative. Efforts are being made to have a larger representation of agriculture at this conference, which will be called upon to consider matters of vital concern to the whole nation. The Missouri Live Stock Producers' Association is urging the appointment of N. H. Gentry as one of the delegates. Mr. Gentry served most ably during the war as a member of the agricultural council which acted in an advisory capacity to the Food Administration.

This demand of agriculture for greater representation in this conference is not in the interest of a single class of our population, but for the welfare of the whole nation. No industrial reorganization can be permanent which leaves out of consideration the greatest industry of all—the production of food and raw materials. Any condition tending to reduce production of these basic needs will cause even higher prices, thus making impossible the very results sought through this industrial conference. The only hope for keeping the cost of living within reason is to maintain production along all lines.

In writing of his efforts to make the greatest success of farming, one of our readers said: "We have put all we have made into improving the soil; have built a new barn, a silo, corn crib, tool and wagon shed; fixed up a milk room and ice house, and last—but first in importance—installed a good water system, and have water almost everywhere it is needed, including hot and hold water in the house and a shower bath, but no auto." We wonder how many farmers have done all these things before buying a car.

The continued inflation of land values by speculators has caused the United States Department of Agriculture to send out a warning. Serious consequences are liable to result from the boom, the department says, especially when the price of farm products tends to go back to normal. Experts estimate that an advance of 25 per cent was justifiable for Iowa land, but speculators have pushed the price far above this in many instances.

SELECT SEED IN FIELD

Insure Next Year's Kafir Crop by Saving Ample Seed Supply

THAT yields of corn can be increased several bushels to the acre by careful and wise selection of seed has been demonstrated by growers in all parts of the corn-producing sections. Equally good results can be secured with kafir, milo, feterita, and the sweet sorghums. Careful selection and handling of the seed is of greater importance with the sorghums than with corn. Many of the difficulties kafir growers have in getting a stand are due to the planting of poor seed. Kafir and others of the sorghums do not run out on farms where careful attention is given to the matter of selecting seed each fall from the field and giving it the proper care during the winter. Every farm and community should have its adapted varieties of kafir and other sorghum crops. It is always well to begin with a locally productive and well adapted strain when possible. By following proper methods of seed selection, there is no reason whatever for changing seed after a crop has been grown successfully and profitably for a few years. There is a great field open in the selection and improvement of the grain sorghums. After a good strain or variety has been developed it should be used year after year.

This year, as in years past, the sorghums are demonstrating their ability to thrive with scant rainfall. They simply stand still and wait for the rain, and the present indications are that the sorghums of Kansas will make a very creditable showing before the first killing frost. All over the state the crop reports indicate that the sorghums held their own and are now coming on in good shape. Why not recognize these crops as specially adapted to our conditions and then honestly try to co-operate with nature in bringing about improvement?

In the improvement of the sorghums, as with other crops, seed selection is of primary importance, and yet how few select kafir or other sorghum seeds with even a reasonable amount of care. The biggest single step that could be made in getting better results in the growing of kafir or others of these crops is proper selection of seed. There is only one right time and one place to make seed selections of any of the sorghum crops, says G. E. Thompson, in a recent publication of the extension division of our agricultural college. Mr. Thompson, who is now connected with the Arizona Experiment Station, has had a wide experience with the grain sorghums, and is able to speak from the standpoint of his own personal observations and experiments. He points out that this right time to select seed of these crops is in the field when the earliest heads are matured and before the first hard frost, and the right place is the field on the grower's farm.

It is necessary first to fix in mind a uniform type of plant and seed head, and in making the selections follow this type.

Selection from Standing Stalks

Selections should be made from the standing stalks in the field. Only by selecting from the standing stalks is it possible to procure heads that have grown under average field conditions. Seed heads should not be selected from plants that have had extra advantages of space and moisture. An exceptionally good head grown under average conditions will be more valuable for seed purposes than a good head grown under special advantages.

Only by selection from the standing stalk in the field is it possible to secure seed heads grown upon plants which did not stool excessively or which did not throw out an objectionable number of side branches. Only in this way is it possible for the grower to secure seed heads produced on storm-proof stalks.

If an attempt is being made to in-



FIELD OF KAFIR SHOWING UNIFORMITY IN HEIGHT AND MATURITY. GROWN FROM IMPROVED SEED RESULTING FROM SEVERAL YEARS CAREFUL FIELD SELECTION

crease the leafiness of the crop in question, the selection must be made from the standing stalk, because then only is there an opportunity to examine the stalk and count the leaves.

For grain purposes, seed heads should be chosen from plants on every stalk of which there is a good head. In other words, it is not desirable to select a fine, big seed head if the same plant on which it is grown produced several suckers that did not mature good seed heads.

Choosing the Seed Head.

Care should be used to avoid the selection of any head that shows signs of plant disease or that shows severe injury.

All selections should be made from plants which mature at approximately the same date. It is always the uniform field which gives the highest yield, and it is the field uniform in maturity which is the easiest to harvest and handle in such condition that the crop can be put in the bin and kept without heating or spoiling.

In the forage varieties particularly, it will pay to give some attention to selection from plants that are both sweet and juicy. With forage varieties, seed heads borne on dry, pithy stalks should be avoided.

The suggestions already given regarding seed selection apply alike to varieties grown for grain production and those grown for forage production. In selecting varieties grown for grain production special attention must be given to the grain yield.

Type of Head for Grain

Only those heads that are well filled with grain throughout should be chosen. That is, heads which have only a shell of grain on the outside of the head, instead of being solid and well filled from

butt to tip should be avoided. With kafir and milo it is the reasonably compact type of head which makes the highest grain yield.

The number of whorls in the seed head does not have as much effect upon yield as has been supposed by many. This has been demonstrated by careful tests of the Department of Agronomy during the last two years.

All seed heads that do not come entirely out of the boot should be avoided. It must be remembered that the same principles hold true in growing plants that hold true in growing animals; that is, like tends to produce like. If the seed heads fail to come entirely out of the boot one year, under the same climatic conditions they are apt to do the same thing the following year. That portion of the seed head which remains in the boot is nearly always moldy and musty and consequently is a dangerous feed. Likewise is usually produces a small amount of grain.

All heads which shatter badly should be avoided. It does not pay to raise a crop of grain and then have one-tenth to one-fourth of it shattered on the ground by the time harvest is completed.

Hybrids or Crossing

All members of the sorghum family will cross with one another, consequently seed selections should be made from plants grown at least one hundred yards from any other variety. All hybrid heads should be avoided. Hybrid heads are the result of crossing between different varieties, and seed planted from hybrid heads does not breed true. Hybrids usually can be recognized because of their large, thrifty, coarse appearance, and late maturity.

Keep Seed Dry and Undamaged

The storage of seed after selection is

just as important as the selection itself. Selecting seed carefully and then storing it where it will be damaged by moisture, by insect pests, or by rats and mice, is an utter waste of time and a useless expense. Whether corn or the sorghums, the seed should be stored where it will be dry, free from insect pests, free from rat and mouse damage, and free from attack of birds or any other destructive agency.

With the sorghum seed, the most satisfactory manner is to leave the seed in the head until planting time the next spring. The heads either can be thrown into burlap sacks and hung from the rafters of the barn or granary where they will be kept dry, and where there is free circulation of air, or if the granary is tight enough so that the birds are shut out, can be threaded together by means of a sacking needle and heavy twine, and a considerable quantity can be hung up in this manner.

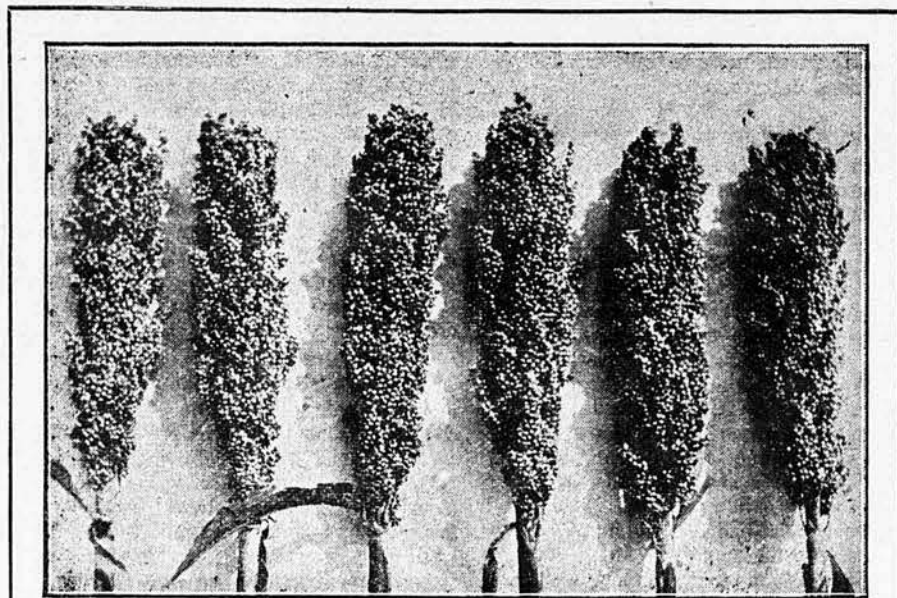
Cow Owner and the Consumer

It is only recently that it has been made clear to thoughtful men and women that the consumer and the cow owner have a vital interest in each other. Heretofore, the man who milked the cow thought of the consumer only as a market for his milk. He looked on the health officer, who insisted on his producing clean milk, as a nuisance or necessary evil, while the consumer was prone to buy milk as a beverage or luxury. The price of shoes could rise from \$1 to \$3 a pair and with a groan or two it was accepted, but when the price of milk went up one cent a quart, a continual protest over the greed of the dairymen was heard. Thousands of housekeepers indignantly told the milk man to discontinue his calls—they would get along without milk since he had raised the price.

The discoveries of the last few years are convincing mothers of growing children that there is a vital something in milk and in butter which their children must have if their bones are to be strong, their legs not bowed, if there is to be that health and ruggedness which makes for sturdy men and women; that, just as you cannot build a brick without mortar, no matter how much the mortar costs, so you cannot build strong bodies for men and women without dairy products. Therefore, the consumer has a selfish interest in the prosperity of the dairyman, that prosperity which insures his continuance in business. This means that the dairyman has a selfish interest in having the consumer understand not only the value of milk for his family, but in understanding the problems of cost, sanitation, labor shortage, etc., which confront him in seeking to provide this essential food.

The National Dairy Show, Chicago, October 6 to 12, is the common meeting place for the consumer and the producer. Uncle Sam spends thousands of dollars annually at this show to help the producer reduce the cost of production and improve the quality of his product, and to help the consumer understand why dairy products are so vital to the health of his or her family, and how to prepare them economically.—H. E. VAN NORMAN, California.

Bids are being asked by the government on vegetable and flower seeds to be distributed by congressmen. A few of the items are as follows: sweet peas 5,000 pounds, zinnia seed 500 pounds, candyfruit 1,000 pounds, nasturtium 2,000 pounds, beets 70,000 pounds, lettuce 60,000 pounds, and radish 75,000 pounds. All of these are standard seeds easily obtained from any seedsman. Why should congressmen send them to you or me?



FULLY MATURED HEADS OF KAFIR GROWN IN CENTRAL KANSAS IN 1913 FROM CAREFULLY SELECTED SEED OF EARLY MATURING STRAIN

VEGETABLES FOR WINTER USE

Suitable Storage Facilities Necessary for Food Conservation

CAVES, or outside cellars, for the storage of vegetables of various kinds are almost indispensable on a well equipped farm. To keep vegetables successfully, the storage conditions must be right. The temperature should be steady and for most vegetables should be below 50 degrees. Ventilation must be provided, although the air in a storage cellar or cave should be moist enough to keep vegetables from shriveling or wilting.

General types of storage arrangements are described by J. T. Rosa, Jr., of the Missouri College of Agriculture in a recent circular. He points out that local conditions must be kept in mind, as these may cause or permit modifications of these systems or methods.

The house cellar or basement is frequently available for storage purposes, says Mr. Rosa, but the furnace or heater often makes it too warm for most vegetables except for temporary storage. The rather warm, dry cellar does provide ideal storage conditions, however, for sweet potatoes, squash, and pumpkins. Some root crops can be stored in such a basement by bedding the roots in boxes or barrels of slightly moist sand to prevent drying and shriveling.

For storage of most vegetables in the house cellar, the proper conditions can be obtained by walling off a corner of the cellar farthest from the heating system to serve as a cold room. This may also be a convenient place to keep canned goods, preserves, and kraut. Meat and dairy products may also be kept in such a room temporarily, although there is danger of tainting them with the flavor of the vegetables. The cold room should have a hard dirt or a concrete floor, and if in a damp locality there should be a tile drain in the center, toward which the floor should slope. If this drain enters a sewer, there should be a bell trap at the mouth to prevent entrance of impure odors and gases into the cellar from the sewer. This trap will also prevent draining out the cool air of the cellar on warm days. If any heating pipes pass through this room, they should be covered with asbestos to prevent undue heating of the storage room. This room should have one or more openings to the outside which can be regulated to control the temperature as well as to provide ventilation. During the early part of the storage period when the vegetables are fresh and green and when outside temperatures are rather high, ventilation is needed most. The storage room is cooled by opening the ventilator at night to let in the cool air and closed early in the morning to prevent the influx of warm air. This method is more effective if the room is on the north side of the house or in a heavily shaded position. The walls which separate the storeroom from the rest of the cellar should be tight and may be built either of hollow tile, masonry, concrete, or a double wooden wall with a four-inch air space between the walls and a layer of building paper on the inside to complete the insulation. There should be only one door, which should fit tightly and be large enough to admit barrels and large boxes. A chute opening to the outside may be convenient in placing articles in storage, but it should have a tight door.

The storeroom should be kept dark most of the time, but it should be arranged so that plenty of light may be had when desired. Along one side of the room should be bins in which to store potatoes and root crops in bulk. The bins should have a false slat floor four inches above the floor of the room, and it is also desirable to have a false back consisting of slats one inch apart and four inches from the solid wall. This construction permits free circulation of air, insuring the aeration of stored products in all parts of the store-

room. The bin may be partitioned into compartments with fixed or movable walls, so that medium quantities of different vegetables can be stored without mixing. The bins should be covered with four-inch strips nailed two inches apart, thus forming a broad shelf which is very convenient for storing boxes and other articles. On the other side of the room there should be a series of shelves one above the other, three feet wide and fifteen to eighteen inches apart. These are useful to hold boxes or to stack up canned goods and preserves, as well as to store various vegetables in small bulk, as cabbage, tomatoes, and fruit. The space in the middle of the room can be used to place barrels and boxes which contain stored products.

Caves or Outside Cellars

The outside cellar or cave is probably the most popular style of storage for vegetables and fruits on the farm. These structures are simple and cheap and the size is regulated by the need for storage space. For storing small quantities, perhaps the cold room in the cellar is more convenient, at least for town gardeners. Because various root crops are commonly stored in this type of cellar, they are often referred to as "root cellars," although many other crops can be stored in them successfully. The best type of outdoor cellar is two-thirds or more below the surface of the ground, with steps leading down to an inner door. Where there is a hillside near the kitchen door, conditions are ideal for the construction of such a cellar, with the entrance nearly on the level, and the body of the cellar in the hillside. Outdoor cellars of this type should be covered with earth and sod from one to three feet deep over the whole exterior, except the space for the door. This provides insulation and makes it easy to maintain constant temperatures in the cellar.

Outdoor cellars may be built of wood or concrete. The first step is to prepare the excavation for a cellar of the desired size. The excavated earth is used to cover the cellar when completed. The floor may be hard-packed dirt or concrete, but the dirt floor is generally best, because it supplies some moisture to the atmosphere in the cellar. A six-inch tile placed in the center of the floor should connect with the open some distance away and thus serve as a drain and ventilator. In constructing a wooden cellar, a row of rough posts about five feet high is set along each side of the pit and topped with a four by six-inch plate, which serves as a support for the rafters. The walls may consist of poles or plank nailed along the outside of the row of posts, and the roof may be of the same material. Earth and sod are banked heavily on the sides and roof, to make the cellar rain and frost-proof. The exterior of the cellar mound should be rounded so that water will run off readily. A four or six-inch tile which will serve as a ventilator should be inserted through the roof of the cellar at the end farthest away from the door. This ventilator may have a hood to keep out the rain and should always be closed in cold weather. A convenient size of cellar of this type for farm storage is ten by eighteen feet. Such a cellar will easily contain four hundred bushels of vegetables. A smaller size can be constructed for storing vegetables strictly for home uses. The door and the steps leading down to the cellar should be inclosed in a frame vestibule, which may also be used as a temporary storage place or implement room.

Concrete is preferable for the outdoor cellar, as it provides a permanent structure, and storage conditions are as good or better than in the wooden cellars. The excavation should be made the exact size of the proposed cellar so that the earth can serve as the outer wall of the

form. The walls should be at least five inches thick. The roof should be in the form of a flat arch, with one-half inch iron rods inserted every foot for reinforcement. The form for the roof is made by sawing out arches of the desired curve and supporting these within the cellar on temporary studdings of the same height as the side walls. Boards laid lengthwise on the arches complete the forms on which concrete for the roof is poured. The reinforcement rods should be inserted near the lower surface of the concrete layer to give the greatest strength to the roof. A flat roof is easier to construct and is satisfactory for the smaller cellars, if well reinforced. The ventilation and insulation of the concrete cellar should be arranged in the same way as for the wooden structures. The cellar should have bins along one or both sides to contain the stored products in bulk, with a shelf above for storing boxes and smaller articles. The bins should have false floors and backs, with the same type of slat construction as suggested for the house cellar to provide free circulation of air. Vegetables can usually be kept later in the spring in these cellars than in any other type of natural storage.

Hotbeds and Cold-Frames

The empty hotbed and cold-frame may be used to good advantage during the fall and winter for storing vegetables. The soil and spent manure should be removed from the hotbed and used on the garden during the summer. The empty pit is then available for storing in bulk potatoes and root crops of all kinds. Celery and cabbage also can be stored here by pulling the plants with the roots on and setting them closely together in the upright position, with the roots embedded in a few inches of loose moist soil in the bottom of the pit. The cold-frame is used in the same way as the hotbed, but since it has no pit its capacity is limited. The regular glass sash can be used to cover these structures when used for vegetable storage, but they must be supplemented with board shutters, straw mats, or loose straw to protect the contents from sunlight and from freezing and thawing. The walls on the outside should be well banked with soil or manure.

Methods of Storing Vegetables

Irish potatoes should be left in the ground until the middle of the fall, then dug and placed in storage. The tubers should be carefully handled, as bruises or cuts are generally the starting points of decay. Any of the methods of storage described will serve for potatoes. Potatoes which have frozen in the ground should not be placed in storage, and potatoes should not be exposed to actual freezing in their storage place. If moist when placed in storage, and no chance is given for aeration, potatoes may heat badly just after going into storage. If the storage temperature ranges above 45 degrees F., the eyes will sprout before spring. This is undesirable and can be prevented largely by keeping the potatoes dry and as cool as possible toward spring. Potatoes will keep well stored in bulk, or they may be stored in boxes or barrels.

Many vegetables, such as parsnips, salsify, horse radish, rutabagas, winter radishes, and celeriac, included under the general term of root crops, require the same general treatment. They should be kept cool and somewhat moist. They are not injured by freezing and are usually left in the ground until after the first freeze in autumn. Another group of vegetables handled in the same general way as the foregoing, but which are more tender to cold, are beets, carrots, kohlrabi, leeks, and turnips. The first two mentioned are subject to excessive wilting or shriveling in storage unless they are kept moist. This is

often done in the house cellar by burying the roots in barrels of moist sand which will keep them in plump condition until spring. This group should be harvested before heavy freezing. All of the root crops should be dug carefully, and the tops should be twisted off some distance above the crown, instead of topping closely with a knife. The roots may be placed in storage in bulk or in smaller containers. All of the crops are good keepers, and are very desirable as winter vegetables. Frequently it is desirable to leave a portion of such crops as parsnips, horseradish, salsify, and rutabagas in the ground over winter. In this case, harvesting is simply deferred until spring.

Fresh cabbage from the home garden may be had easily until late winter. Only solid heads of the late varieties should be stored. A simple method of storage is to pull the heads with the roots attached and bury them upside down in a shallow trench. The loose outer leaves should be wrapped closely about each head. About three tiers are placed in the trench, with the second and third tiers alternating between the roots of the first. The pile is then covered with earth and straw. Another method is to pull the heads with roots on and set in an empty cold-frame or hotbed. This latter method is also satisfactory for brussels sprouts and cauliflower.

Spinach, endive, kale, and lettuce can be kept for several weeks in a cool cellar. Fall plantings of these crops are uninjured by slight freezing, but before heavy frost they should be cut and stored loosely in a box or barrel in a cool cellar.

Celery which matures late in the fall can be stored green and blanched by the process of storage. The stalks are dug with a spade, and a large portion of the roots left on each plant. These are set side by side in a shallow layer of soil or sand in the bottom of an empty hotbed or in a corner of a cool cellar. The soil is kept moist, but the plants must be kept dry, otherwise decay may set in. The plants should continue growing slowly, and since the storage place is dark, the stalks will soon become blanched. Celery is also stored extensively in trenches two feet deep and three feet wide, the green plants being set closely on the bottom of the trench, which is roofed over with boards and banked with earth.

Sweet potatoes differ from most other vegetables in being very tender to cold, yet they can be kept easily by maintaining suitable conditions. The tubers should be dug before heavy frost and handled with great care, as slight bruises may bring about decay. The tubers should be air-dried before going into storage, and a further curing is desirable if a well ventilated room is available where a temperature of 80 degrees can be maintained for ten days. After this period sweet potatoes should be kept at a temperature of 50 to 55 degrees F. A warm house cellar or shelves near the heating system is the best place to keep sweet potatoes for home use. They should be stored in boxes which hold about one bushel, and should not be rehandled or sorted over in storage. Slight shriveling of the tubers is not objectionable.

Pumpkins and squashes have the same temperature requirements as sweet potatoes and should be stored in the same way. They should be ripened on the vine, or by leaving in sun several days after being picked from the vines. The Hubbard and Cushaw varieties of squash may be kept easily in perfect condition until the middle of May.

Onions require cold, dry storage with free ventilation. They may be kept satisfactorily in a cool cellar if the bulb

(Continued on Page Nine)

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

CORN growers who are most successful select seed in the field from the highest yielding plants which are growing under average conditions of spacing, fertility, and moisture. It is not enough merely to select seed in the crib, for one can have no notion of the conditions under which the crib-selected ear was produced. In selecting seed from the field attention should be paid to the maturity of the ear. Only well matured ears should be chosen for it is desirable above all things to select a strain which will thoroughly mature within the growing season. Never select ears with big sappy cobs for such ears dry out very slowly in storage and are more liable to heat or freeze than ears which contain a smaller amount of moisture. Among the highly yielding plants it is well to pay attention also to the form of the plant itself. The ears should be chosen from strong, stocky plants which stand erect in resistance to the wind. However, the total yield of the plant and its early maturity are the main considerations, and no characteristic of the plant or ear should be allowed to interfere in the selection for these features.

Report on Rosen Rye

A new variety of rye, known as the Rosen rye, has been commented on quite favorably in various farm papers since harvest. A good many farmers of Kansas have become interested in the variety and are making inquiries concerning it and trying to locate seed.

The Rosen variety of rye has been developed and distributed by the Agricultural College of Michigan. The tests there have proven it to be superior to common rye for that section of the country. Farmers should not be too hasty, however, in taking up with a new variety. Prof. L. E. Call of the Kansas Experiment Station reports that Rosen rye has been grown for the past two years on the agronomy farm at Manhattan. It looks good growing in the field, but in yield of grain has not equaled the common Kansas rye in either season. In 1918 the Kansas rye yielded at the rate of forty-eight bushels to the acre on the station farm, while the Rosen rye under the same conditions yielded but thirty-five bushels to the acre. In 1919 the Kansas rye yielded fifty-one and a half bushels to the acre, and the Rosen rye forty-eight. As an average of the two years, the yields of Kansas rye are slightly over eight bushels to the acre more than the Rosen rye. "From the results we have secured to date," says Prof. L. E. Call, "we cannot recommend Rosen rye for Kansas.

The variety, however, looks promising from the pasture standpoint. The stems are stouter, the leaves wider and the total vegetative growth appears somewhat more vigorous. The heads and grain are larger and more uniform than in Kansas rye. We feel that the variety deserves further test before condemning it for growing under our conditions, but we cannot, at this time, recommend it as superior, or even equal in yield to common rye.

"I know of no one in Kansas who can supply seed of Rosen rye, but the Michigan Experiment Station, at East Lansing, Michigan, can furnish the names of many farmers in that state who can supply seed of this variety."

Hogs Need Protein Feeds

Some nitrogenous supplement must be supplied to make the hogs gain rapidly and economically when they are given the run of the corn field to do their own harvesting. At least part of this supplement may be in the form of a roughage such as alfalfa, clover or soy bean pasture. If provision has not been made to have clover, alfalfa or rape pasture in the field adjoining the corn, or if soy beans have not been planted in the corn or in an adjacent field, then it is essential to feed some nitrogenous supplement such as tankage, linseed oil meal or middlings. The particular supplement used would depend upon the relative prices and composition of this class of feeding stuffs. Ordinarily tankage is a cheap supplement. It may be fed wet or dry in a trough or may be fed dry in a self-feeder if care is taken that the supply of corn is never limited. If hand feeding is preferred, then one-fourth to three-fourths pound daily for each hog should increase the gain and decrease the cost of production. The higher the price of corn and the younger the hog, the larger is the proportion of tankage which should be fed. Linseed oil meal may be substituted for tankage if twice as much is used.

These results would also apply when the hogs are doing their own harvesting. Such crops as alfalfa, clover, soy beans and rape decrease the amount of nitrogenous supplement necessary and if the growth of these crops is luxuriant and palatable no additional supplement may be necessary. This is particularly true if the soy beans contain a large amount of pods. In this case the beans furnish a concentrated supplement which makes a valuable finishing crop. Here again the relative price of feeds would determine the amount of supplement to use. With corn above the average price a small amount of tankage or linseed oil

meal can no doubt be fed to advantage.

It is also a good practice to supply the hogs with mineral mixture of some kind. The following has given good results: Glauber's salts 3 parts, sal soda 3 parts, charcoal 4 parts, and copperas 3 parts, common salt 3 parts, sulphur 1 part. This mixture may be put out in small boxes or troughs where the hogs can eat what they wish. It will help keep them thrifty by supplying ash material needed and by preventing worms.

Corn Ground Best for Wheat

Clean corn ground will make the best seed bed for wheat this season. Ground that was in small grain last summer cannot be put into the best condition for wheat. Corn ground that has been well prepared and given good clean cultivation and from which the corn has been or will be removed within a short time will be firm and in much better condition for wheat. The preparation of the ground for corn and the cultivation of the crop have liberated plant food that has not been used by the corn plant, due to the lack of moisture. This plant food will be available for wheat this fall as soon as moisture falls. Corn ground can be prepared for wheat with a minimum expense. A good seed bed can be prepared by disking the ground after the first good soaking rain. Usually, double disking is all the preparation that corn ground needs for wheat.

A seed bed prepared this way will be better than plowed ground this season. Plowed ground, although plowed early in the summer, will not become settled and firm in time for wheat seeding. Corn land is already firm and well settled and will furnish almost ideal seed bed conditions when rain comes. It is not advisable to sow wheat on either corn ground or plowed stubble land until after it rains. It will be much better, under most conditions, to wait until rain falls rather than to seed in dry ground even though it is necessary to delay seeding somewhat later than normal. In case it is necessary to seed late, more seed should be sown to the acre.—L. E. CALL, Agronomist, Kansas Experiment Station.

Test Association Report

In the monthly report made by W. E. Peterson, who has general supervision over the cow testing association work in Kansas, figures are given on ten of the fifteen associations at work in the state. J. B. Bennett, of the Jackson County Association, has the highest herd average for the month, his record show-

ing forty-one pounds of butter fat to the cow and 1,130 pounds of milk. A. G. Stevens, of Montgomery County, is only a fraction of a pound of butter fat behind. Third in the list comes L. E. Johnson of the Harper County Association; fourth, J. A. Comp & Son of the Morris County Association, and fifth, J. A. Engle of the Dickinson County Association. The high cow for the month was owned by J. B. Bennett of Jackson County, her production being 102 pounds of butter fat and 1,680 pounds of milk. The second cow was in the Ira Romig herd of the Shawnee County Association, her production for the month being 62.8 pounds of butter fat and 1,571 pounds of milk.

Mr. Peterson states in his report that due to the pasture shortage, flies and hot weather, the cows naturally went down in production and as a result there was a tendency among members of the different testing associations to quit testing for the months of July and August. Testing work to be of value, however, cannot be allowed to fall into such a habit, for it is necessary to have a complete year's record of a cow, both as to the amount and cost of production, in order to draw any positive conclusions. The dry cow should have her feed charged against her so that at the end of the year it will be possible to figure the profit or loss. While the results of the July and August conditions are fresh in mind is a good time to begin to plan for getting the best of them next year, perhaps by having a smaller summer silo to fill, or planning to grow some supplemental forage crop like Sudan grass to feed during the poor pasture period.

Holstein Show at Wichita

A thousand dollars in premiums is to be offered on Holsteins at the next Wichita live stock show, to be held some time in February. This is an indication that the management of this show feels that the dairy industry in the Southwest is well worthy of such encouragement as can be given by making it worth while the show the animals. The offering of such liberal cash prizes should result in a strong showing of this popular dairy breed. The Holstein Association of Kansas is planning to make a public sale at this exposition, the sales committee having recently announced that they hoped to sell about sixty head. The committee is hoping that at least 120 head will be entered in the show. It is up to the Holstein breeders to take advantage of this opportunity to boost for their chosen breed.

Live Stock Awards at Hutchinson

A WELL balanced live-stock show was staged at the Kansas State Fair in Hutchinson last week. Probably the weakest point was in the showing of horses and dairy cattle. Considering the increased interest in the breeding of dairy cattle in Kansas, it would seem that there should have been a much larger showing of dairy stock at the big fairs of the state. The beef cattle show was exceptionally good in Shorthorns and Herefords.

The Shorthorns were judged at Hutchinson by Charles H. Herr, Lodi, Wisconsin, who injected a new feature into the championship awards, as they have been running on the circuit beginning with Des Moines, by making the senior yearling heifer, Lady Supreme, shown by William Forsythe & Son of Greenwood, Missouri, grand champion female. Lady Supreme has been junior champion, but has failed before to reach the grand champion place. She is a beautiful

heifer, and Kansans are particularly interested in this new alignment of championship honors because Lady Supreme was bred by H. H. Holmes of Topeka and sold to Mr. Forsythe last spring. Another feature of the Shorthorn show was the placing of Supreme Clipper, owned by H. B. Gaeddert, Buhler, Kansas, at the head of the senior heifer calf class. In the bull classes the championship awards were a repetition of those of the Iowa State Fair, Nebraska State Fair, and Kansas Free Fair.

The Herefords were judged by W. J. Brown of Fall River, Kansas, and while he made no changes in the first and championship awards as they have been going at previous fairs it was evident from his careful work that he was placing the awards just as though he had no precedents to guide him. As at Topeka the Angus show was made by the two Oklahoma herds and the one Iowa exhibitor with a few entries by the Kan-

sas Agricultural College. Nothing new developed in the awards in the Angus classes. The fat cattle showing was the same as at Topeka. The Kansas Agricultural College won all firsts and championships.

The sheep show was the best ever put on at the Kansas State Fair. In addition to the good Kansas flocks shown, entries were made by two Iowa breeders and one from Missouri. The agricultural college of Kansas won a goodly portion of the blue and championship ribbons, among them being champion ram in both Shropshire and Hampshire breeds. The ewe championships in Shropshires and Hampshires were won by C. F. and Frank Chandler of Sheridan, Iowa. W. L. Blizzard of the Oklahoma Agricultural College, who has judged sheep at Hutchinson for several years, gave his usual satisfaction in placing the awards.

Mr. Blizzard also judged the horses.

The showing of horses was mainly a repetition of the Topeka show with one or two exhibitors missing. The Gossard Estate's aged Percheron stallion, Kapitaine, was made grand champion stallion and their mare Koicottie, senior and grand champion mare. Erehart, the two-year-old stallion shown by Mahlon Groenmiller, was junior champion, and Beulah, two-year-old mare shown by D. F. McAlister of Topeka was junior champion mare. The agricultural college showed seven Belgians, the only horses of this breed entered. This exhibit was a very typey string of horses and attracted a great deal of attention. The exhibitors of horses were as follows: Gossard Breeding Estate, Turon, Kansas; Kansas Agricultural College, Manhattan; J. A. Howell & Son, Paris, Missouri; D. F. McAlister, Topeka, Kansas; J. T. Schwalm & Son, Baldwin, Kansas; Adam Becker & Son, Meriden, Kansas; Cantrell Brothers, Sterling, Kansas; Mahlon

Greenmiller, Pomona, Kansas, and Guy McAllister, Lyons, Kansas.
The detailed awards are as follows:

BEEF CATTLE AWARDS

SEORTHORNS.

Exhibitors—W. A. Forsythe & Sons, Greenwood, Mo.; H. Rees & Son, Pilger, Neb.; W. Preston Donald, Okla. Ia.; Park E. Salter, Wichita, Kan.; John Regier, Whitewater, Kan.; H. B. Gaeddert, Butler, Kan.; W. E. Pritchard, Walnut, Ia.
Judge—Charles M. Herr, Leola, Wis.

BULLS—Aged—1, Rees & Sons on Violet's Dale; 2 and 3, Salter & Sons.
Two-year-olds—1, Donald on Cumberland Choice; 2, Salter on British Emblem; 3, Gaeddert on Laverder Hampton.
Senior Yearlings—1, Forsythe & Sons on Choice Stamp.

Junior Yearlings—1 and 2, Rees on Marshall's Gift and Victor Dale; 3, Pritchard; 4, Gaeddert.
Senior Calves—1 and 3, Pritchard; 2, Rees & Sons; 4 and 5, Salter; 6, Regier.
Junior Calves—1, Rees on Royal Dale; 2, 4 and 5, Salter; 3, Pritchard; 6, Regier.

COWS—Aged—1, Forsythe & Sons on Amy's Princess; 2, Gaeddert on Laverder Princess 7th; 3, Regier on Calla 2.
Two-year-olds—1, Donald on Clara 71st; 2, Rees; 3, Salter; 4, Forsythe & Sons.
Senior Yearlings—1, Forsythe & Sons on Lady Supreme; 2 and 4, Pritchard; 3, Donald; 6, Salter.
Junior Yearlings—1, Donald on Clara 68th; 2, Pritchard; 3 and 5, Forsythe & Sons; 4, Rees & Sons.

Senior Calves—1, Gaeddert on Supreme Clipper; 2, Rees; 3, Pritchard; 4 and 5, Salter; 6, Forsythe & Sons.
Junior Calves—1, Rees on Dale's Gladness; 2 and 6, Donald; 3, Regier; 4, Forsythe & Sons; 5, Pritchard; 6, Salter.
Senior and Grand Champion Bull—Rees & Sons on Violet's Dale.

Junior Champion Bull—Rees on Marshall's Gift.
Senior Champion Female—Donald on Clara 71st.
Junior and Grand Champion Female—Forsythe & Sons on Lady Supreme.
Aged Herds—1, Rees; 2, Donald; 3, Salter; 4, Forsythe & Sons.
Young Herds—1, Rees; 2, Pritchard; 3, Forsythe & Sons.
Get of Sire—1, Rees; 2, Pritchard; 3, Rees; 4, Regier; 5, Salter.
Produce of Dam—1, Rees; 2 and 3, Pritchard.

Exhibitors—O. Harris & Sons, Harris, Mo.; Carl Miller, Belvue, Kan.; R. H. Hazlett, Eldorado, Kan.; C. M. Largent, Merkel, Tex.; Kansas State Agricultural College, Manhattan, Kan.; Klaus Brothers, Bendena, Kan.; V. O. Johnson, Aulene, Kans.; Guy Keele, Hutchinson, Kan.; Reno County High School, Hutchinson, Kan.; N. D. Pike, Weatherford, Okla.

Judge—W. J. Brown, Fall River, Kan.
BULLS—Aged—1, Harris & Sons on Repeater Jr.; 2, Pike on Bristol Fairfax; 3, Largent on Prince Fairfax; 4, Klaus on Beau Onward.
Two-year-olds—1, Harris on Repeater 129th; 2, Hazlett; 3, Pike.

Senior Yearlings—1, Miller on Gay Lad 71st; 2, Largent; 3, Klaus.
Junior Yearlings—1, Harris on Repeater 212th; 2 and 3, Hazlett; 4 and 5, Largent.
Senior Calves—1 and 3, Hazlett, on Hazford Bould 3d and Publican 12th; 2, Harris; 4, Klaus; 5, Largent.

Junior Calves—1 and 4, Harris; 2, Hazlett; 3, Largent; 5, Miller.
COWS—Aged—1, Hazlett on Yerba Santa; 2 and 6, Harris; 3, Klaus; 4, Largent; 5, Pike.
Two-year-olds—1, Hazlett on Bloss 16th; 2 and 4, Largent; 3, Klaus; 5, Harris.

Senior Yearlings—1, Largent on France's Lassie; 2, Hazlett; 3 and 5, Harris; 4, Miller.
Junior Yearlings—1, Harris on Miss Repeater 155th; 2, Hazlett; 3, Largent; 4, Miller; 5, Harris.
Senior Calves—1, Harris; 2, Largent; 3, 4 and 5, Hazlett.

Junior Calves—1 and 4, Largent; 2, Harris; 3, Miller; 5, Hazlett.
Senior and Grand Champion Bull—Harris on Repeater Jr.
Junior Champion Bull—Harris on Repeater 212th.
Senior and Grand Champion Female—Hazlett on Yerba Santa.

Junior Champion Female—Largent on France's Lassie.
Aged Herds (5 shown)—1, Harris; 2, Hazlett; 3, Largent; 4, Klaus; 5, Pike.
Young Herds (5 shown)—1, Harris; 2, Largent; 3, Hazlett; 4, Miller; 5, Pike.

Calf Herds (5 shown)—1, Hazlett; 2, Harris; 3, Largent; 4, Klaus.
Get of Sire (7 shown)—1, Hazlett; 2, Harris; 3, Largent; 4, Klaus.
Produce of Cow (5 shown)—1, Harris; 2 and 4, Largent; 3, Hazlett.

Exhibitors—L. R. Kershaw, Muskogee, Okla.; J. C. Simpson, Eufala, Okla.; R. W. Plummer, Marshalltown, Ia.
Judge—John B. Brown, Waterloo, Ia.

BULLS—Aged—1, Kershaw on Plowman; 2, Plummer on Black Benz.
Two-year-olds—1, Kershaw on Ben Hur 2d of Lone Dell; 2, Simpson.
Senior Yearlings—1, Simpson on Eston of Lone Hill.

Junior Yearlings—1, Kershaw on Black Inverne; 2, Simpson.
Senior Calves—1, Kershaw on Muskogee Ben Hur; 2 and 3, Simpson.
Junior Calves—1 and 4, Kershaw; 2 and 3, Simpson.

COWS—Aged—1, Kershaw on Twin Burn Pride 5th; 2 and 3, Simpson; 4, Plummer.
Two-year-olds—1, Kershaw on Muskogee May 6th; 2 and 4, Simpson; 3, Plummer.
Senior Yearlings—1, Plummer on B. B. of Glen-Lar; 2, Kershaw; 3, Simpson.

Junior Yearlings—1 and 4, Plummer; 2, Kershaw; 3, Simpson.
Senior Calves—1, Kershaw; 2, Plummer; 3 and 4, Simpson.
Junior Calves—1 and 4, Kershaw; 2 and 3, Simpson.

Senior and Grand Champion Bull—Kershaw on Plowman.
Junior Champion Bull—Kershaw on Muskogee Ben Hur.
Senior and Grand Champion Female—Kershaw on Twin Burn Pride 5th.

Junior Champion Cow—Plummer on B. B. of Glen-Lar.
Aged Herds—1, Kershaw; 2, Plummer; 3, Simpson.
Young Herds—1, Kershaw; 2, Simpson.
Get of Sire—1, Kershaw; 2, Simpson.
Produce of Dam—1 and 3, Kershaw; 2 and 4, Simpson.

Exhibitors—United States Disciplinary Barracks, Leavenworth, Kan.; Smyser Stock Food Co., Sterling, Kan.; Glenn Davis, Columbia, Mo.; Lyon County High School, Davis, Mo.

Judge—L. S. Gillette, Fostoria, Ia.
BULLS—Aged—1, U. S. D. B. on Johanna Bonheur Champion 2d.
Two-year-olds—1, U. S. D. B. on Sir Ruy Veema Dale; 2, Davis.

Senior Yearlings—1, Smyser on Top of the Market; 2, Lyon County High School; 3, Davis.
Junior Yearlings—1, Smyser on Top of the Market; 2, Lyon County High School; 3, Davis.
Senior Calves—1, Davis; 2, 3, and 4, U. S. D. B.

Junior Calves—1, U. S. D. B. on U. S. Ormsby; 2, U. S. D. B. on Skylark 11th; 3, Smyser; 4, Davis.
COWS—Aged—1, Davis on Campus Chief Bis; 2,

3, and 4, U. S. D. B.
Two-year-olds—1, Davis on Alice Clothilde Piebe; 2, U. S. D. B.; 3, Davis.
Senior Yearlings—1, U. S. D. B. on U. S. Duchess Canary Oak De Kol; 2, U. S. D. B.; 3, Davis.
Junior Yearlings—1 and 2, U. S. D. B. on Johanna Bonheur Juliana Inks; 2 and 4, U. S. D. B.; 3, Davis.
Senior and Grand Champion Bull—U. S. D. B. on Johanna Bonheur Champion 2d.
Junior Champion Bull—Smyser on Top of the Market.
Senior and Grand Champion Female—Davis on Campus Chief Bis.
Junior Champion Female—U. S. D. B. on Johanna Bonheur Juliana Inks.
Aged Herds—1, U. S. D. B.; 2, Davis.
Young Herds—U. S. D. B.
Calf Herds—U. S. D. B.
Get of Sire—1, U. S. D. B.; 2 and 3, Davis.
Produce of Dam—1, U. S. D. B.; 2, Smyser; 3, Davis.

JERSEYS

Exhibitors—G. T. Braden, Tulsa, Okla.; Hilcrest Farm, Hutchinson, Kan.
Judge—L. S. Gillette, Fostoria, Iowa.
BULLS—Aged (1 shown)—1, Braden on Noble's Handsome Prince.
Two-year-olds (2 shown)—1, Braden on Tulsa Chief; 2, Hilcrest.

Junior Yearlings (1 shown)—1, Braden on Even-tide's Bell Boy.
Senior Calves (2 shown)—1 and 2, Braden.
Junior Calves (2 shown)—1, Braden on Eugene You'll Do; 2, Hilcrest.

COWS—Aged (5 shown)—1, Braden on Stockwell's Proud Beauty; 2, 3 and 4, Hilcrest.
Two-year-olds (2 shown)—1, Braden; 2, Hilcrest.
Senior Yearlings (2 shown)—1, Braden on Emaline of Windsor Place; 2, Hilcrest.

Junior Yearlings (6 shown)—1, Braden on You'll Do Fern Lass; 2, Braden; 3 and 4, Hilcrest.
Senior Calves (2 shown)—1 and 2, Braden.
Junior Calves (6 shown)—1 and 2, Braden; 3 and 4, Hilcrest.

Senior and Grand Champion Bull—Braden on Noble's Handsome Prince.
Junior Champion Bull—Braden on Eugene You'll Do.
Senior and Grand Champion Cow—Braden on Stockwell's Proud Beauty.

Junior Champion Cow—Braden on You'll Do Fern Lass.

AYRSHIRES

Exhibitors—John Linn & Son, Manhattan, Kan.; Kansas State Industrial Reformatory, Hutchinson, Kan.; Gossard's Breeding Estate, Turon, Kan.
Judge—L. S. Gillette, Fostoria, Iowa.

BULLS—Aged (None shown).
Junior Yearlings (1 shown)—1, Reformatory on Cavalier's Rosemaster.
Senior Calves (4 shown)—1, Linn on Aca 3rd's Good Gift; 2, Gossard; 3, Reformatory; 4, Linn.

Junior Calves (3 shown)—1 and 2, Gossard; 3, Reformatory.
COWS—Aged (2 shown)—1, Gossard on Velma Rosewood of Steyral; 2, Gossard.
Senior Yearlings (2 shown)—1, Linn on Linn-dale Prosperity; 2, Linn.

Junior Yearlings (1 shown)—1, Linn on Linn-dale Drummond.
Senior Calves (3 shown)—1, Linn on Linn-dale Marginalia; 2 and 3, Gossard.
Junior Calves (1 shown)—1 and 3, Gossard; 2, Linn.

Get of Sire—1 and 3, Linn; 2, Gossard.
Produce of Dam—1, Linn.
Young Herds—1, Linn.
Junior and Grand Champion Bull—Linn on Aca 3rd's Good Gift.

Senior Champion Cow—Gossard on Velma Rosewood of Steyral.
Junior and Grand Champion Cow—Linn on Linn-dale Prosperity.

HOG AWARDS

DUROC JERSEYS

Exhibitors—Zink Stock Farms, Turon, Kan.; Wood-dell & Danner, Winfield, Kan.; W. R. Crowe & Sons, Hutchinson, Kan.; J. W. Brooks & Sons, Blythe-dale, Mo.; Homer Drake, Sterling, Kan.; G. M. Shepard, Lyons, Kan.; W. W. Otey, Winfield, Kan.; Guy Zimmerman, Morrowville, Kan.

Judge—L. A. Weaver, Columbia, Mo.
BOARS—Aged—1, Otey on Pathfinder Chief; 2, Drake; 3, Woodell & Danner; 4, Crowe.
Senior Yearlings—1, Brooks on Circuit Orion; 2, Zink; 3, Brooks; 4, Crowe.

Junior Yearlings—1, Brooks on Ridgeview Panama; 2, Otey; 3, Shepard; 4, Crowe.
Senior Pigs—1, Woodell & Danner on Chief King 2d; 2 and 4, Crowe; 3, Zimmerman.
Junior Pigs—1, Zink on Unea High Orion 2d; 2, Zink; 3, Brooks; 4, Shepard.

SOWS—Aged—1, Crowe on Big Rosa; 2 and 4, Brooks; 3, Crowe.
Senior Yearlings—1, Otey on Pathfinder's Beauty 2d; 2, Brooks; 3 and 4, Crowe.
Junior Yearlings—1 and 4, Brooks; 2, Otey; 3, Zink.

Senior Pigs—1, Crowe on Ann's Model Rose; 2, Shepard; 3 and 4, Brooks.
Junior Pigs—1, Zink on Z's Frances; 2, Zink; 3 and 4, Brooks.

Senior and Grand Champion Boar—Brooks on Ridgeview Panama.
Junior Champion Boar—Woodell & Danner on Chief King 2d.

Senior and Grand Champion Sow—Crowe on Big Rosa.
Junior Champion Sow—Zink on Z's Frances.
Aged Herds—1, Brooks; 2, Otey; 3, Crowe.

Young Herd Owned and Bred by Exhibitor—1 and 4, Zink; 2, Crowe; 3, Brooks.
Get of Sire—1, Crowe; 2, Otey; 3, Brooks; 4, Zink.

Produce of Dam—1, Crowe; 2 and 4, Zink; 3, Brooks.

POLAND CHINAS

Exhibitors—Winn & Moore, Randolph, Mo.; Ira Barnes, Grenola, Kan.; H. P. Walter & Sons, Effingham, Kan.; Oliver & Sons, Danville, Kan.; J. R. Adams & H. A. Mason, Gypsum, Kan.; H. T. Hayman, Formosa, Kan.; C. R. Garden, Burton, Kan.; Deming Ranch, Oswego, Kan.; A. J. Erhart & Son, Oregon, Mo.; Reno County High School, Hutchinson, Kan.; A. S. Foster, Harper, Kan.

Judge—Sol. Leonard, St. Joseph, Mo.
BOARS—Aged—1, Adams & Mason on Giant Bob; 2, Walter on A Big Timm; 3, Deming Ranch on Big Jones Again.
Senior Yearlings—1, Oliver on Columbus Wender; 2, Deming Ranch.

Junior Yearlings—1, Oliver on Black Buster; 2, Walter; 3, Adams & Mason; 4, Hayman.
Senior Pigs—1, Winn & Moore on Liberty Boy; 2 and 4, Deming Ranch.

Junior Pigs—1, Adams & Mason on Bob's Prince; 2, Foster; 3, Deming Ranch; 4, Oliver.
SOWS—Aged—1, Erhart on Big Millie; 2, Walter; 3 and 4, Oliver.
Senior Yearlings—1, Hayman on P. Perfection; 2, Erhart; 3, Deming Ranch; 4, Barnes.

Junior Yearlings—1, Erhart on Buster's Pride; 2, Walter; 3, Deming Ranch; 4, Erhart.
Senior Pigs—1 and 4, Erhart; 2 and 3, Deming Ranch.
Junior Pigs—1, Oliver on Black Buster's Kind; 2, Adams & Mason; 3, Oliver; 4, Walter.

Senior and Grand Champion Boar—Oliver on Black Buster.
Junior Champion Boar—Winn & Moore on Liberty Boy.
Senior and Grand Champion Sow—Erhart on Buster's Pride.

Junior Champion Sow—Oliver on Black Buster's Kind.
Aged Herds Owned by Exhibitor, and Young Herd Bred and Owned by Exhibitor—1, Adams & Mason; 2, Oliver; 3, Foster; 4, Walter.
Get of Sire—1, Oliver; 2, Adams & Mason; 3, Walter; 4, Deming Ranch.

Produce of Sow—1, Adams & Mason; 2, Oliver; 3, Foster; 4, Walter.

Exhibitors—W. W. Waltmire & Son, Peculiar, Mo.; Arthur Mosse & Daughter, Leavenworth, Kan.; J. H. McAnaw, Cameron, Mo.; H. C. Krause, Hills-boro, Kan.

Judge—L. A. Weaver, Columbia, Missouri.
BOARS—Aged—1, Krause on Don Regal; 2, McAnaw; 3, Waltmire.
Senior Yearlings—1, Mosse on Don Bolshewiki; 2, Waltmire.

Junior Yearlings—1, McAnaw on Combination Chief 2d; 2, McAnaw; 3, Mosse.
Senior Pigs—1 and 3, McAnaw; 2, Mosse; 4, Waltmire.

Junior Pigs—1, Mosse on Don William Prince; 2 and 4, Mosse; 3, McAnaw.
SOWS—Aged—1, McAnaw on Miss W. P.; 2, Mosse; 3, Waltmire.

Senior Yearlings—1, McAnaw on Emily Wing 3d; 2, Mosse; 3, Waltmire.
Junior Yearlings—1, Mosse on Donna Wildwood 2d; 2 and 3, McAnaw.

Senior Pigs—1, Mosse on Don Charlotte Wildwood; 2, 3, and 4, McAnaw.
Junior Pigs—1, 2, 3 and 4, Mosse.
Senior and Grand Champion Boar—McAnaw on Combination Chief 2d.

Junior Champion Boar—Mosse on Don William Prince.
Senior and Grand Champion Sow—McAnaw on Emily Wing 3d.
Junior Champion Sow—Mosse on Don Charlotte Wildwood.

Get of Sire—1, McAnaw; 2 and 3, Mosse.
Produce of Sow—1, Mosse; 2 and 3, McAnaw.
Aged Herds—1, McAnaw; 2, Mosse.
Young Herds—1 and 3, Mosse; 2, McAnaw.

Exhibitors—George E. Valley Falls, Kan.; J. C. Githens, Amber, Okla.; W. O. Matthews, Hutchinson, Kan.; Frank Matthews, Sterling, Kan.
Judge—H. H. Moore, Gardner, Kan.

BOARS—Aged (4 shown)—1, Githens on Amber Tipton; 2, Matthews; 3, Eia.
Senior Yearling (1 shown)—1, Githens on Tuttle King.

Junior Yearlings (2 shown)—1 and 2, Githens.
Senior Pigs (5 shown)—1 and 2, Githens; 3, Eia.
Junior Pigs (6 shown)—1, Eia on Danville Crum; 2 and 3, Githens.

SOWS—Aged—1, Githens on Lady Amber; 2 and 3, Eia.
Senior Yearlings (1 shown)—1, Eia on Halcyon Burke.
Junior Yearlings (4 shown)—1, Eia on Eia's Pride; 2 and 3, Githens.

Senior Pigs (6 shown)—1, Eia on Sunflower Girl; 2, Githens; 3, Eia.
Junior Pigs (9 shown)—1 and 3, Githens; 2, Eia.
Senior and Grand Champion Boar—Githens on Amber Tipton.

Junior Champion Boar—Eia on Danville Crum.
Senior and Grand Champion Sow—Githens on Lady Amber.
Junior Champion Sow—Eia on Sunflower Girl.

Aged Herds—1, Githens; 2 and 3, Eia.
Young Herds—1, 3, and 4, Eia; 2, Githens.
Get of Sire (4 shown)—1, Githens; 2 and 3, Eia.
Produce of Sow (4 shown)—1, Githens; 2 and 3, Eia.

Exhibitors—Gilmore's Farm, Fredonia, Kan.; John Coldwater, Chase, Kan.; Homan & Son, Peabody, Kan.; Gilmore & Hague, Peabody, Kan.; Dr. F. B. Cornell, Nickerson, Kan.; H. M. Eddingfield, Mount Pleasant, Ia.; C. F. & Frank Chandler, Charitan, Ia.; George D. Merit, Haven, Kan.; K. S. A. C., Manhattan, Kan.

Judge—W. L. Blizzard, Stillwater, Oklahoma.
Aged Rams (10 shown)—1, K. S. A. C.; 2, Chandler; 3, Homan.
Ram Under Two Years (11 shown)—1, Chandler; 2 and 3, Gilmoreland's.

Ram Lambs—1, K. S. A. C.; 2, Gilmoreland's; 3, Homan.
Aged Ewes (9 shown)—1, Chandler; 2, Gilmoreland's; 3, Homan.

Ewe Under Two Years (14 shown)—1, Homan; 2 and 3, Gilmoreland's.
Ewe Lambs (15 shown)—1, K. S. A. C.; 2, Chandler; 3, Gilmoreland's.

Flocks (4 shown)—1, K. S. A. C.; 2, Chandler; 3, Gilmoreland's.
Pen of Three Lambs (4 shown)—1, K. S. A. C.; 2, Gilmoreland's; 3, Gilmore & Hague.

Champion Ram—K. S. A. C.
Champion Ewe—Chandler.

Exhibitors—C. F. & Frank Chandler, Dr. F. B. Cornell, W. W. Waltmire; Kansas State Agricultural College.
Judge—W. L. Blizzard, Stillwater, Oklahoma.

Aged Rams (4 shown)—1, K. S. A. C.; 2, Waltmire; 3, Chandler.
Ram Under Two Years (5 shown)—1 and 2, K. S. A. C.; 3, Chandler.

Ram Lamb (5 shown)—1, Chandler; 2 and 3, K. S. A. C.
Aged Ewe (4 shown)—1, Chandler; 2, K. S. A. C.; 3, Waltmire.

Ewe Under Two Years (4 shown)—1 and 3, K. S. A. C.; 2, Chandler.
Ewe Lambs (6 shown)—1, K. S. A. C.; 2 and 3, Chandler.

Flocks (4 shown)—1, K. S. A. C.; 2 and 3, Chandler.
Pen of Three Lambs (3 shown)—1, K. S. A. C.; 2 and 3, Chandler.

Champion Ram—K. S. A. C.
Champion Ewe—Chandler.

Exhibitors—W. W. Waltmire & Sons, Peculiar, Mo.; C. F. & Frank Chandler, Charitan, Iowa; John Coldwater, Chase, Kan.

Judge—W. L. Blizzard, Stillwater, Oklahoma.
Aged Rams—1, Waltmire; 2, Coldwater; 3, Chandler.
Ram Under Two Years—1, Coldwater; 2 and 3, Waltmire.

Ram Lamb—1, Waltmire; 2, Chandler.
Aged Ewes—1, Waltmire; 2, Chandler.
Ewes Under Two Years—1 and 2, Waltmire; 3, Chandler.

Ewe Lamb—1 and 2, Waltmire; 3, Chandler.
Flocks—1 and 2, Waltmire; 3, Chandler.
Champion Ram and Champion Ewe—Waltmire.

Tuberculosis Work for July

There are 725 accredited herds of cattle in the United States, according to the July report of the Bureau of Animal Industry giving in detail the results of the tuberculosis eradication work. Dr. H. M. Graefe, the federal veterinarian in charge in Kansas, tested six herds in the state during July, and only one reactor was found. There are four federal officials at work in Kansas in co-operation with J. H. Mercer, sanitary live stock commissioner. As yet Kansas has no accredited herds on the list, but a number are in line for being placed on the list in the near future. Minnesota leads all the states with 143 herds on the list. North Dakota comes second with 99.

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Concrete for Permanence

GENERAL FARM ITEMS

Where live stock is a factor on the farm, make every field hog-tight and sheep-tight; have thoroughly good permanent pastures; grow leguminous crops; build a silo, and keep only pure-bred males. These five things are absolutely essential in the economical production of live stock. Of course this program calls for some labor and expense, but the permanent condition of prosperity in the sections devoted to live-stock production is proof of the good profit derived therefrom.

Feeding the Calf

Many times, a farmer selling milk has a surplus which he runs through the separator. This provides a limited amount of skim milk which can be fed to calves to good advantage. In such cases the milk in the ration can be gradually changed from whole milk to skim milk at the end of two or three weeks by substituting an equal amount of skim milk for each portion of whole milk removed, according to W. W. Swett of the Missouri College of Agriculture. A complete substitution can be affected in a week or ten days, at which time a good healthy calf should be receiving about six quarts a day. In case the supply of milk is irregular, it is well to have on hand a supply of skim milk powder, which can be mixed with water at the rate of one pound to every nine pounds of water. This can be fed the same as the whole or skim milk.

When the calf is started on calf meal the amount to be added varies with the size of the calf and the brand of meal. Directions included with the meal should be followed very carefully. In almost every case, the recommendations are to mix the meal with either hot or cold water in sufficient amounts to make a thick, pasty gruel. This is stirred carefully to remove all lumps and then diluted with boiling water. The gruel is usually added to the skim milk and fed at approximately blood temperature. It should never be fed cooler than 95 degrees Fahrenheit and should be given at the same temperature every day. A thermometer is necessary; "guess-work" has no place in calf feeding. The amount of skim milk should be gradually decreased and the amount of calf-meal gruel increased. At the end of six weeks the milk can be discontinued. At this time the calf may be taught to eat the dry meal from a feed box if small quantities are rubbed on its nose after it has finished drinking. Feed the dry meal regularly and in small quantities so that none will be left in the feed box to spoil. Give just what the calf will readily eat, and develop the appetite slowly. The gruel can be continued until the calf is four months old and perhaps somewhat longer if desired.

It is always advisable to get the calves to take hay and grain at as early an age as possible. They will usually begin when three or four weeks old if given the opportunity. The early development of this habit helps greatly when calves are taken off the calf-meal ration, for they are already taking liberal quantities of hay and grain and the change to this ration alone will be gradual. The calves will not suffer such a serious "set-back" as they might otherwise experience. For the first six to eight weeks, the hay fed should be a fine grade of timothy or a coarse alfalfa or mixed hay. Fine alfalfa hay is so palatable that the young calf will eat too much. Either feed a coarse hay or limit the amount of hay which the calf can get. After this time, alfalfa may be fed liberally in safety.

Fight Against Corn Borer

The European corn borer, unless its spread is checked, is likely to prove the most destructive of all insects to America. The total value of the corn crop last year was three and one-half billion.

The European corn borer has been found in sections surrounding Albany and Schenectady, in the vicinity of Bos-

ton, and recently in three places in southern New Hampshire.

The borer passes the winter in the corn stalks and its eradication in infested areas depends on the complete destruction of all the stalks. It has also been found that when corn is not available the borer will live in the stems of other plants. As many as forty different plants up to the present time have been found to satisfy its appetite. This makes the problem of eradication a most difficult one. Every effort possible is being made by the federal government to eradicate this pest where found. Experiments are being made with liquid fire as well as machines which will crush infested material to a degree that will destroy the borer.

The infection of fields in New York State is estimated from 1 per cent to 5 per cent, while in Massachusetts fields are from 1 per cent to practically 100 per cent infection.

Prof. George A. Dean, entomologist of the Kansas Experiment Station, attended the Albany-Boston conference on this newly-introduced insect pest, and reports that he is thoroughly convinced that this is the most dangerous insect which has become established in this country. A plan of action was agreed to at this conference of agricultural commissioners and official entomologists of the United States and Canada. Professor Dean states that his personal opinion of the seriousness of the situation and the methods to be employed in meeting it is fully expressed in the resolutions unanimously adopted. They are as follows:

Whereas, the European corn borer has become well established in both Massachusetts and New York State, and during the past two years has seriously damaged both sweet and field corn in Eastern Massachusetts, and

Whereas, it has spread rapidly this season and will, unless speedily checked in both states, spread quickly over large areas heretofore uninfested and in a few years may cause enormous losses which might run into many millions of dollars,

Therefore we, the National Association of Commissioners of Agriculture, with official entomologists from many states and representatives of the United States Department of Agriculture, together with representatives of the Canadian government, present as experts in conference upon the situation, express themselves, after examining the infested areas, as thoroughly convinced that this pest is one of the most dangerous insects which has become established in America, and we hereby place ourselves on record in favor of most energetic efforts on the part of federal and state agencies to control, and, if possible, exterminate this insect, including in the program vigorous quarantines to prevent its distribution.

The danger of spread is so great, the probabilities of successful control under American conditions so unpromising, that we unhesitatingly recommend most energetic measures to control this very serious enemy of our principal grain crop. The immensity of the interests threatened leads us to advise a comprehensive plan of action which may involve the expenditure by the general government of much larger sums than are recommended in these resolutions. We urge the present congress to appropriate and make available for use as rapidly as an effective organization to carry on the work can be secured and developed, in addition to funds already available, two million dollars, the sum to be requested for the calendar year of 1920, to be determined by the future developments of the work.

We would at this time call attention to the necessity of all commissioners of agriculture and entomologists throughout the United States of America and Canada taking an active interest in this insect, and we would hereby urge the dissemination of information respecting the situation by the appropriate agencies in each state and by the federal government.

We would recommend for the purpose of promoting the control and extermination of this borer the appointment of a committee representing the commissioners of agriculture, official entomologists and the plant pest committee for the purpose of unifying and directing all efforts for the securing of appropriations and to aid in the determination of a comprehensive policy.

Organize Co-operatively

A move to inaugurate a National Federation of Co-operative Live Stock Shippers' Associations was launched in Chicago, August 12. A group of state leaders and representatives of co-operative live stock shipping associations sponsored the move. These representatives came from eight states in response to a call issued by the educational department of the Farmers' Co-operative Grain Dealers' Associations of the Middle West. They agreed to select an organizing committee of fifteen men who will perfect plans to be submitted at a later and larger meeting.

Earl J. Trosper was elected organizing secretary of the group, and will be actively engaged in pressing the matter



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40x4 12.25

now and the holding of the meeting. Reports made at the conference dealt with a number of facts of importance to the industry, which might be summarized as follows:

Shipping associations are being organized more rapidly than any other co-operative enterprise. There are over 100 farmers' co-operative shipping associations in the United States today. Minnesota leads with 100; Wisconsin second, 600; Nebraska fourth, 250; Illinois fifth, 200; and Illinois sixth, 150. To date there has been no co-ordination of effort among the associations in any state or nation except in Minnesota and Michigan, where state associations have been formed. Five stock shipping associations do business in some states legalizes corporations, but other states have no satisfactory laws.

There is no standardization in bookkeeping, accounting, marking, grading, and commission handling, etc. A national federation of farmers' cooperative shipping associations is being organized in order to accomplish standardization of methods of shipping and protection in regard to legislation and the settlement of transportation and terminal difficulties. A committee of fifteen will be organized within a few days. All communications on this subject should be sent to Earl J. Trosper, Room 906, Insurance Building, Chicago.

Who Should Pay for Roads

Should the owners of vehicles pay for the use of the highways? If so, how much? The earliest toll roads in America were mostly toll roads, which never were free. The theory became prevalent that highways should be "free," and toll roads were accordingly purchased and "free" by the states. While toll roads thus became "free," some one still had to pay for their upkeep as well as interest on the investment. That one has been the taxpayer. But should a taxpayer be required to pay for a service without regard to the use of the service to him? This is a question that has never been answered satisfactorily.

Toll roads should be "free," why not "free" street railways and "free" railroads? In fact it is being urged right now that Uncle Sam should continue indefinitely to meet the present railway deficit by taxation, that cities should pay by taxation the deficits of the street railways. Only a few more steps need be taken to reach the "freedom" of use of all kinds of highways.

Previously the term "free highways" is a misnomer, for some one must pay for them. There are no truly free highways. Nature has provided for water and air ships. The term therefore simmers down to this: It is the most economic way to secure adequate highway transportation at least cost to the community as a whole.

Real estate taxpayers are required to pay the entire cost of roads and streets. There is invariably strong resistance to highway improvement, for a taxpayer feels that the improvement is not worth its cost to him. No reasonable man rebels at paying for an improvement or a service all that it is worth to him. But nearly all men object to paying for improvements or services from which others derive greater benefit at less cost. In short, there is a very great opposition to charges that are not proportionate to benefits received. It is this opposition that has retarded the development of our city and country highways.

Illinois voted for a \$60,000,000 bond for roads when a law was drawn up that made the owners of motor vehicles pay the entire bill. Motor car licenses

are to pay the bond interest and sinking fund annuities. While this is a step in the right direction, it is not only an inadequate step but it is not entirely equitable. Each motor vehicle, under this Illinois law, does not pay for the use of state roads in proportion to its individual use. For example a vehicle that travels 30,000 miles a year pays no more than one that travels 3,000 miles a year.

An ideal method of charging for the use of a road would be one that involves a fixed annual charge per vehicle plus a mileage charge. Thus for a passenger vehicle weighing one ton the fixed annual charge might be \$10 plus one-quarter cent per mile traveled. It is not practicable to secure the annual mileage of each vehicle, but it is practicable to tax gasoline and thus secure a payment approximately proportionate to the mileage and weight of each vehicle. A 15 per cent tax on the retail price of gasoline would yield about a quarter of a cent per ton-mile of dead weight of vehicle.

In our last Road and Street issue C. A. Mullen, director of the paving department of the Milton Hersey Company, of Montreal, suggested a tax on gasoline, for the purpose above outlined. In England prior to the war there was a tax of four cents per gallon on gasoline, which motorists did not oppose. Mr. Mullen points out that there would be some difficulties in applying such a tax, but none that is insuperable. For example, gasoline used for motor vehicles would have to be segregated from gasoline used for other purposes.—Engineering and Contracting.

The automobile industry employs 830,000 people; pays annual wages of \$747,000,000; has \$1,297,000,000 capital invested; 5,000,000 cars in use.

The whirlwind campaign of the National Government to reduce the high cost of living instituted several weeks ago quickly brought members of the executive committee and of the general board of the National Board of Farm Organizations to Washington. Among those who appeared before committees in Congress in behalf of the interests of member organizations and farmers generally were Milo D. Campbell and William T. Creasy, chairman respectively of the general board and executive committee, R. D. Cooper, J. D. Miller, H. W. Ingersoll, W. J. Kittle, R. C. Reed, of the National Milk Producers' Federation, G. A. Turner, President of the California Bean Growers' Association, John A. McSparran, Master of the Pennsylvania State Grange, and Charles A. Lyman, Secretary of the Board.

Better Sires—Better Stock. The crusade for better livestock throughout the country starts on October 1.

Vegetables for Winter Use

(Continued from Page Five)

are spread out thinly or are placed in shallow crates or trays. The bulbs should be thoroughly air-dried in the open and a further preliminary curing should be given by placing the onions in shallow crates in an open shed or corn crib until freezing weather comes on, when they should be placed in the cool cellar. Onions grown from sets or transplanted plants are poor keepers. Storage onions should not be topped until removed from storage. Garlic and multiplier onions may be stored in the same way as onions or they may be left in the ground over winter.

Just before or early in the morning after the first frost in fall all the green and partly ripened tomatoes should be gathered from the vines and placed in the cellar. These will ripen slowly over a period of three or four weeks, depending on the temperature. Another satisfactory method is to pull the vines loaded with the unripened fruit. These vines are hung in a cellar or are laid in a hotbed or cold frame, where they will ripen the fruit during the succeeding six weeks. This fruit is of fair quality, and is especially appreciated after the other fresh vegetables are gone.

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. Your advertisement here reaches over 60,000 farmers for 5 cents a word per week. No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. Terms, always cash with order. SITUATIONS WANTED ads, up to 25 words, including address, will be inserted free of charge for two weeks, for bona fide seekers of employment on farms.

AGENTS WANTED

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

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

AGENTS MAKING \$200 WEEKLY: Everyone wants it. Formulas for 200 beverages to be made at home. Book form. Send \$1 for copy and territory proposition. Act quickly. Buyers' Export Agency, 487 Broadway, New York.

CATTLE

MY GUERNEY HERD BULL, MAY Royal Lad No. 26123, one of the best bred bulls of the breed. Frank Atwood, Route 3, Oswego, Kansas.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, beautifully marked, six weeks old, from registered sire and choice heavy milking Holstein cows; \$30.00, delivered to any station by express. Paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wis.

JERSEY BULL, GENERAL CROWDER, thirteen months old, registered, fine individual, very best of butter breeding, solid color, gentle, for immediate sale at \$100. Jersey cow, Bessie's Little Golden, registered, fine conformation, very rich milker, gentle, solid color, three years old, fresh soon, priced at \$140. Come see them. Write or order from this ad at once. Dr. E. C. Ackerman, Stewartsville, Mo., twenty miles west of St. Joseph.

DOGS

PEDIGREED COLLIE PUPS, ALSO grown dogs for farm. Circular of other breeds, 10c. Shadydel Kennels, York, Pa.

RABBIT HOUNDS, FOX HOUNDS, COON, opossum, skunk, squirrel dogs. Setters. Pointers. Brown's Kennels, York, Pa.

FOR SALE—HIGH CLASS COON, SKUNK and opossum dogs. If you want the kind that delivers the goods, I have it. Stamp for reply. A. F. Sampey, 862 So. Campbell St., Springfield, Mo.

AIREDALES, COLLIES, AND OLD English Shepherd dogs. Trained male dogs, brood matrons, pups all ages. Flemish Giant, New Zealand, and Rufus Red Belgian rabbits. Send 6c for large instructive list of what you want. W. R. Watson, Box 123, Oakland, Iowa.

SPORTSMEN—TRAINED BEAGLES, rabbit, fox, coon, skunk, squirrel and opossum dogs, bird dogs, pet and farm dogs, swine, rabbits, pigeons, pheasants, goats—100 varieties blooded stock. Circulars 10c. Violet Hill Kennels, York, Pa.

REAL ESTATE

LISTEN—DANDY IMPROVED 120 ACRES, \$4,500. Improved forty, \$1,200. Terms. McGrath, Mountain View, Mo.

FOR SALE—FARMS AND RANCHES IN Jewell, Mitchell and Osborn counties, \$40 to \$125 per acre. Send for list. J. H. King, Cawker City, Kansas.

FARM LANDS—TEXAS.

BIG CROPS IN NORTHWEST TEXAS ON the new line of the Santa Fe. The Federal Railroad Administration has authorized the completion of the new Shattuck branch of the Santa Fe Railroad to take care of this year's big crops—wheat, oats and sorghums. This will open for immediate settlement and development a large block of my land in a wheat and stock farming section of Ochiltree and Hansford counties in Northwest Texas near Oklahoma state line, where the first crop has in a number of cases paid for the land, and where cattle and hogs can be raised at low cost. Land is of a prairie character ready for the plow, no stone, stumps, no brush to be cleared, at attractive prices on easy terms. Climate healthful, rain falls during growing season. Write for free illustrated folder, giving experience and results settlers have secured in short time on small capital. T. C. Spearman, 927 Railway Exchange, Chicago, Ill.

TANNING

LET US TAN YOUR HIDE—COW, HORSE or calf skins for coat or robe. Catalog on request. Crosby Frislan Fur Co., Rochester, New York.

FARMS WANTED

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

IDAHO LANDS

BUY FORTY OR EIGHTY ACRES UNDER the Minidoka. Best irrigated project in America. Plenty water, electric light, power and heat for land owners. Special, fine all tillable eighty, fenced and under cultivation, forty in alfalfa, four-room house, barn, granary, garage, chicken house, family orchard. Town 2 1/2 miles. \$16,000. Good terms. Call and be shown or write. Martin & Son, Rupert, Idaho.

POULTRY WANTED

SHIP POULTRY AND EGGS NOW TO "The Copes," Topeka. Established 1883.

RUNNER DUCKS WANTED—BANTAMS for sale or trade. Emma Ahlstedt, Lindsborg, Kansas.

HONEY

NEW CHOICE EXTRACTED HONEY, 120 pounds, \$25; bulk comb honey, 116 pounds, \$30. Bert W. Hopper, Rocky Ford, Colo.

PURE EXTRACTED HONEY—SIXTY-pound can, \$12.25; two, \$24.00. Frank H. Drexell, Crawford, Colo.

PURE EXTRACTED CLOVER, EXCELLENT. Write us. W. S. Pangborn, Center Junction, Iowa.

MISCELLANEOUS

DE LAVAL CREAM SEPARATOR NO. 15, nearly new. Mrs. H. Buchanan, Abilene, Kansas.

FOR SALE—BY THE MOHAWK RABBITRY & KENNELS, Indianapolis, Ind., high-class rabbits of all breeds; guinea pigs, ferrets, pigeons, hunting dogs and blooded young hogs. Write for prices and terms. Raise stock for us. We furnish the breeding stock and buy back all you raise. Stamp for circular.

THE STRAY LIST

TAKEN UP—BY S. P. MORGAN OF Hallowell, Lola Township, Cherokee County, Kansas, on the 22d day of May, 1919, one small colt, male, color bay, appraised at \$30. Anna Masterson, County Clerk.

TAKEN UP—BY JOHN BYRNE, OF Florence, Marion County, Kansas, on the 27th day of August, 1919, one horse, weight 1,100 pounds, branded on left shoulder. O. V. Heinsohn, County Clerk.

TAKEN UP—BY JOHN BYRNE, OF Florence, Marion County, Kansas, on the 27th day of August, 1919, one pony mare, weight 800 pounds. Color, dark brown; 4 feet 4 inches high. O. V. Heinsohn, County Clerk.

TAKEN UP—BY WM. E. SMITH, OF Lincoln, Rice County, Kansas, on July 24, 1919, one mare about eight years old, color dark bay, spavin on right hock, few wire marks. Appraised at \$50. Perry A. Evans, County Clerk.

TAKEN UP—BY B. E. LISTER, WHOSE residence is the northeast quarter of 15-6-37 of Sherman County, Kansas, on the 7th day of June, 1919, one three-year-old heifer, weight 800 pounds, color red, branded "C", appraised at \$50. One steer coming two years old, color all red, bob tail, appraised at \$50. One steer coming two years old, color black, face black with white ring, appraised at \$50. Doris E. Soden, County Clerk.

HOGS

250 CHESTER WHITE BOARS AND sows, spring and yearling record. Liberty bonds accepted. Earl Bloom, Bridgewater, Iowa.

LARGE POLAND CHINA SPRING PIGS, both sexes, by Walter Expansive Sid. Immune. Priced low. Lester Cooper, Peabody, Kansas.

Real Estate For Sale

SOUTHEASTERN KANSAS—Farms, all sizes; lowest prices. Terms, \$1,000 and up. Send for booklet. THE ALLEN COUNTY INVESTMENT CO., Iola, Kansas.

200-ACRE MISSOURI FARM \$5,500, with Pair Horses

Nine head stock, complete farming implements, etc., near railroad town, high school, creamery, churches, etc. Forty acres rich bottom land, forty acres bench or second bottom, balance fine tillage, much wood, saw timber, several acres orchards, six-room house, barns, corn house, granary, etc. Aged owner to sell at once includes personal property and makes low price \$5,500 for all, easy terms. Details page 88 big 100-page fall catalog, just out, farm bargains Maine to Florida and west to Nebraska; copy free.

Strout Farm Agency

881 A. S., N. Y. Life Bldg., Kansas City, Mo.

Mr. Farmer—

If you want a good stock farm close to the world's largest markets, come and see our land at from \$45 to \$125 per acre. We also have nice combination grain and stock farms. We are within 250 miles of all the best markets.

Ken Davis, Bowling Green, Mo.

BEST BARGAIN IN KANSAS

320 Acres, 200 acres in cultivation, 120 acres bluegrass pasture, all valley and bottom land; eight-room house, gas in house; large barn, double granary, wells, wind mill; one oil well on farm, near church and school; fine surroundings. Price, \$35; \$4,000 cash, balance five to fifteen years. Send for description or see at once. Address Allen County Investment Co., Iola, Kansas.

THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

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

Canning Left-Overs

MIXED vegetables are attractive and economical in salads, omelets, escalloped dishes and to use as garnishes for meat dishes. If the small quantities left from packing different vegetables whole are placed in one can, many desirable combinations can be made. A good combination during the spring season is young carrots, peas, string beans and young onions. A mixture which the fall garden might furnish is peppers, celery, onions and small lima beans. Do not use beets in such combinations, because they will discolor the mixture.

All the vegetables are prepared separately as for canning and packed in layers in a well-boiled jar, according to U. S. Department of Agriculture specialists. Each layer should be packed as tightly as possible before the next is added. Fill jars with a brine. Put on boiled top and rubber. Process in water-bath canner two hours or thirty minutes in steam-pressure cooker under fifteen pounds pressure.

Concentrated Soup Recommended

An excellent concentrated vegetable soup can be made from any desired mixture of vegetables. A tasteful combination to can consists of one quart of concentrated tomato pulp (tomatoes boiled down until thick), one pint corn, or tiny lima beans, 1 pint okra, and 4 teaspoons of sugar and salt mixture—made by mixing sugar and salt in the proportion of one-third salt to two-thirds sugar.

To make the tomato pulp, cook together three quarts of sliced tomatoes, one small chopped onion, and one-half cup chopped sweet red pepper. Put through a sieve and remove seeds and skin. Return strained pulp to kettle and cook down to about the consistency of catsup. Measure, add the corn or beans and okra which has been prepared as for canning, with seasoning. Cook all together for ten minutes and pack hot into jars which have been previously boiled fifteen minutes. Put on boiled top and cleansed rubber, partially seal and place on false bottom in water-bath canner with water to cover. Boil for at least two hours.

Processing under steam pressure is recommended. Quart jars should be processed thirty-five minutes under fifteen pounds pressure. On removal tighten the tops, invert to test for leaks, and when cool put in a dry, dark place.

The County Nurse

The usefulness and happiness of many a life is decreased and life itself perhaps shortened by some physical defect which might have been corrected in childhood, but which in after life is not so easily remedied. The beginnings of these disorders often cannot be detected by any but a trained eye, and so they are neglected until they become pronounced enough to cause serious trouble.

The Red Cross, with its splendid organization, is turning its attention, now that the war is over, to work in the interests of the school children. It is hoped that a county nurse can soon be placed in every county to hold health clinics, visit the schools, examine the children for defects which can be corrected, reporting these to the parents, and conduct classes in home nursing for the mothers and in the high schools. Where there is an existing public health association the Red Cross nurse co-operates with this association. The work is done wholly without expense to the county until its great good has been demonstrated. If it is desired to make the work permanent, the county will

then provide for the work in the regular way.

Shawnee County was the first county in Kansas to install a county nurse. Miss Mary McCormick, a graduate nurse, was placed in this county a year ago by the Red Cross and the Topeka Public Health Nursing Association. She has not only visited 105 rural schools to examine the children for minor physical defects, but this spring gave courses in home nursing and hygiene in the high schools of the county and through the summer months made 376 visits to the homes of children to consult with parents, as well as many visits to doctors' offices and to the hospital with children.

The defects most commonly found are diseased tonsils, adenoids, and eye strain. Some children have enlarged thyroid glands, or goiters, there are some tuberculosis suspects, and a few suffering from malnutrition, or defective teeth. Web fingers are occasionally found. When defects are discovered a card is filled out stating the trouble and the teacher is asked to send this to the parents. There is nothing compulsory about medical attention, but usually the parents are glad to have defects corrected when brought to their attention. "In this county the people have co-operated well," said Miss McCormick. "I don't see how they could have done better. The doctors have been good to co-operate with us, too, and to help us take care of those who are not financially able to have the work done. We refer people to their family physician. Those who have no family physician and who are not financially able to pay for the work are the ones we take care of. Of course this is pioneer work, and we have not had time yet to show just what can be accomplished."

Children's Day

The boys' airplane contest on children's day at the Topeka fair brought out a showing of nine airplanes made by the boys who exhibited them. The boy who had displayed the most mechanical skill in the construction of his plane was rewarded in an air ride in a real plane. The next prize was \$10 in cash, and there was also a third prize of \$5. "This work is education," said Miss Ceora Lanham, in charge of the work with the children, "and I feel that it is impossible to put too much money into it. For all the mechanical work of the future and all the inventions that are to come, we must depend on the children of today."

The girls brought their dolls and prizes were given for the oldest doll, the prettiest doll, and the smallest doll. A brisk contest was held between the children's pets, each child feeling sure that the judges must see the superiority of their own. Dicky, a canary; Happy Jack, a pigeon; Ladybug, a little bantam hen; Babe, a snowy white rabbit, and Merrylegs, a Shetland and Indian pony, were some of the entrants.

Shrinking of Canned Goods

Shrinking of fruits and vegetables in the jars while processing may be due to too long cooking. The time of processing should be reckoned from the time the water around the jars begins to boil, because this is the only accurate way of telling how much the product has cooked, but if the water is not near the boiling point when the jars are put in, the product may be half cooked before the boiling point is reached. The only way to be sure about this is to have the water boiling or almost boiling when the jars are

put in. Of course the jars themselves must be hot so that they will not break. A good way is to wrap each jar with a towel as it is taken from the sterilizing pan, to keep it from cooling while being filled and to protect it from drafts of air which might break the glass, fill it quickly and put it into the hot water bath at once, not waiting until all the jars are filled. Be sure to remove the canned products from the hot water bath just as soon as the sterilization period is completed.

In the case of vegetables which shrink greatly in cooking, the time of blanching may be a little extended so that most of the shrinking takes place during blanching. In the case of string beans, for instance, the period of blanching in live steam is five to ten minutes. If the beans seem inclined to shrink a great deal, they may be blanched for ten minutes, and this will cook them enough so that they will not shrink a great deal afterward.

Caring for Vinegar Plant

I am a reader of the Home Department of KANSAS FARMER. Can you tell me how to care for "vinegar bee" after you are through using it? I would like to keep it for future use. I will be very thankful for any information. Perhaps some of the readers of the paper might know.—ANNA K. DAVIS, Morris Co.

Can you help this member of the KANSAS FARMER family?

Hard to Give up Animals

Many of the boys and girls belonging to the pig clubs conducted by the United States Department of Agriculture in co-operation with the various states become so fond of the animals they have raised as club projects that they find it hard to carry out their original intentions of disposing of them to increase their bank accounts or to buy thrift stamps.

An eleven-year-old club girl in Harvard, Illinois, who had cared eleven months for her prize pig, vents her feelings in the following jingle:

I didn't raise my pig to be a bacon,
I brought her up to be my pride and joy.

I raised her for show, as you all know,
And I raised her as good as any boy.

A small boy with a mournful visage led his club in a thrift-stamp parade last March in Minden, La. Over the hog was carried a banner, "I'm going to die for my country. What are you going to do?"

Laws of Beauty

The laws of applied beauty—beauty in art, in dress, in home decoration—as given by Charlotte Perkins Gilman in that splendid, thought-provoking book, "The Home: Its Power and Influence," are: "Truth, first, last, and always—no falsehood, imitation, or pretence; simplicity, no devious meandering, but the direct, clear purpose and result; unity, harmony, that unerring law of relation which keeps the part true to the whole—never too much here or there—all balanced and at rest; restraint, no riotous excess, no rush from inadequacy to profusion." These laws, says the author, reach deep, spread wide, and are inexorable.

Bean Loaf

"I have been trying to find a recipe for Pinto bean loaf. If you know of one will you please publish it in your paper," writes Mrs. Wm. P. Hoppen of Colorado.

A very good recipe for bean loaf is the following:

- 2 cups cooked beans put through food chopper
- 2 cups soft bread crumbs
- 1 egg, beaten
- 1/2 cup chopped onion
- 1 stalk celery or 1/2 teaspoon Celery seed
- 4 tablespoons bacon fat
- 2 tablespoons flour
- 1/2 cup water or milk
- 1/2 teaspoon salt
- 1/2 teaspoon pepper if desired.

Melt two tablespoons of fat in a frying pan, add the bread crumbs, stirring well until mixed with fat, and add to the ground beans. Cook onion in remaining two tablespoons of fat, add flour and water and boil. Add to mix-

ture and make into a loaf. More crumbs may be needed. Bake nicely browned. Thin slices of loaf placed over the top of the loaf while baking are an addition. Three spoons of catsup may be added if a highly seasoned loaf is liked. This may be served with a sauce made from tomato juice, or with bacon gravy.

Of course it is not necessary to use Pinto beans. Any kind of beans will

Tomato Sauce

This is a delicious sauce to serve with rice or with a meat loaf:

- 1 cup tomato juice
- 2 tablespoons flour
- 2 tablespoons butter
- 1/2 teaspoon salt
- 1/2 teaspoon pepper
- 1 slice onion
- 1 sprig parsley
- 1 piece mace

Put the seasonings in the tomato juice and simmer ten minutes. Melt the butter in a sauce pan, stir in flour, when this is smooth, add the strained tomato juice. Cook for a few minutes or until smooth and thickened. The tomato juice may be used plain, omitting the first cooking with the mace, onion, etc., but this gives a delicious flavor.

FASHION DEPARTMENT

Price of All Patterns, 10 Cents



No. 2989—Girl's Dress: Cut in three sizes—12, 14 and 16 years. Size 14 will require 3 1/2 yards of 36-inch material. No. 2985—A Neat and Comfortable House Dress: Cut in seven sizes—34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 3 yards of 36-inch material. Width at lower edge is about 2 1/4 yards. No. 2984—A Simple Style for the Growing Girl: Cut in four sizes—6, 8, 10, and 12 years.

EGG-O-LATUM

It costs only one cent per dozen eggs to use Egg-o-latium. There is no other expense. Eggs are kept in carton or box in cell. Eggs may be boiled, poached or used in any other way, just like fresh eggs. Simply rub on the eggs—a dozen per minute. A 50c jar is sufficient for 50 dozen eggs. drug, seed and poultry supply stores postpaid.

GEO. H. LEE CO., Dept. 461, Omaha, Neb.

The demand for young men and women is greater now than in any times.

Think of graduates receiving \$1,200 to \$1,800 per year as stenographers, bookkeepers and secretaries. Your success depends upon your college.

Expert teachers in all departments. Equipment latest and most up to date. Banks, Railroads and Commercial firms demand our graduates because they are qualified.

We employ no solicitors. Every graduate gets a position.

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TOPEKA BUSINESS COLLEGE

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East Eighth Street
Topeka, Kansas

—OTTAWA—
Business College
OTTAWA, KANS.
CATALOG FREE

ber 27, 1919

require 3 1/2 yards of 27-inch material. No. 2985—Ladies' Apron: Cut in No. 38, 40, 42 and 44 inches bust measure. The medium size requires 3 1/2 yards of 36-inch material.



2988—Ladies' Dress: Cut in six sizes 38, 38, 40, 42 and 44 inches bust measure. Size 38 requires 5 1/2 yards of 44-inch material. Dress measures about two at the foot. No. 2998—Girl's Dress: Cut in four sizes—6, 8, 10 and 12 years. No. 2999—A Pretty Coat: Cut in four sizes—2, 4, 6 and 8 years. No. 2973—A Pretty Coat: Cut in four sizes—2, 4, 6 and 8 years. No. 2975—A Pretty Coat: Cut in four sizes—2, 4, 6 and 8 years. No. 2977—A Pretty Coat: Cut in four sizes—2, 4, 6 and 8 years. No. 2988—Ladies' Dress: Cut in six sizes 38, 38, 40, 42 and 44 inches bust measure. The medium size requires 3 1/2 yards of 36-inch material. The skirt measures 1 1/2 at the foot, with plaits extended. Separate patterns, 10 cents for each. No. 2998—Girl's Dress: Cut in four sizes—6, 8, 10 and 12 years. Size 10 will require 4 1/2 yards of 44-inch material.

Pattern Notes

Number of neat dresses for girls of sixteen are illustrated this week. 2988 is a good model for linen, gabardine, serge, taffeta, or velvet. The collar, cuffs and cuffs could be contrasting material. The skirt is cut to an underwaist of lining over to form a vest over the front. No. 2977 is excellent for serge, velvet, gabardine, jersey cloth of wool or silk, taffeta or velvet. A very good design for gabardine, or gingham is shown. It is also nice for plaid or checked suitings and combinations of satin and wool cloth or for linen, poplin, and repp. The fronts close with a vest that would look well embroidered or braid-trimmed. For 2998 and novelty goods in brown and green was combined with green serge. It could have blue serge and satin or taffeta, or have fronts, collars, cuffs and trimmed with braid.

Stylish one-piece model in a ladies' dress is 2999. This could be made of tulle with trimming of satin or of jersey cloth, duvetyn, taffeta, gabardine, or silk. This is a simple design with lines. Midnight blue charmeuse in blue and white would be attractive for Waist 2975 and Skirt 2975. Georgette and silk could be combined in this costume. Natural colored pongee for the skirt and the waist of georgette or crepe de chine in the same shade would also be good, or the entire suit might be pongee trimmed with embroidery or piping with collar, cuffs, and belt of contrasting color, or these could be in green or red or brown to give a touch of color.

A serviceable, unique model in a dress is illustrated, with roomy "pockets," which may, however, be omitted. This is a "slip-on" dress with body and sleeves in one. House dress 2984 has set-in sleeves with roomy pockets under the tabs on front. Blue and white checked gingham with facings of blue chambray would be pleasing for this style, or figured percale with facing of white or a touch of color.

Best of Pictures Available

In this day of truly artistic photography and reproductions, no home needs to resort to gaudy decorations which carry no meaning or message. A beautiful print of a masterpiece that bears study can be readily procured. Such mountain views as photographs of Rocky Mountain parks may direct the thoughts daily to the strength of the hills.

Take a look at your walls. Are your pictures restful or inspiring? Do they suggest beauty of sentiment or nobility of purpose? Will children who look at them daily, get a message of good cheer and helpfulness which will make them glad to remember in after years the pictures that hung on the walls at home? Are your pictures hung so high that you need a step ladder to see them? Perhaps we might do well to rake off the decorations of our walls occasionally and begin, as the Japanese do, with one good picture.—VIRGINIA H. CORBETT, Colorado Agricultural College.

Keep tailor-made garments carefully pressed. Cover with a thick, damp cloth and use a heavy, hot iron. Some of the special boards and cushions used by tailors are convenient and may be made at home.

FARM AND HERD NEWS NOTES

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

Address All Communications to
Kansas Farmer, and Not to
Individuals

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

CLAIM SALE DATES.

- Percheron Horses.**
Oct. 15—P. E. Lill, Mt. Hope, Kansas.
- Herefords.**
Oct. 29—Miller & Manning, Council Grove, Kan.
Oct. 30—Kansas Hereford Breeders' Sale, Council Grove, Kan.
- Shorthorns.**
Oct. 7—Johnson County Shorthorn Sale, Olathe, Kan.
Oct. 8—Eastern Kansas Shorthorn Sale, Ottawa, Kan.
Oct. 9—Kansas Shorthorn Breeders' Sale, Independence, Kan.
Oct. 8—Franklin County Shorthorn Sale, Ottawa, Kansas.
Nov. 26—North Kansas Shorthorn sale, Concordia, Kan.
- Polled Shorthorns.**
Nov. 11—J. E. Baxter, Clay Center, Kan.
- Holsteins.**
Oct. 12—Linwood Calf Club Sale, Linwood, Kan.
Oct. 10—Ft. Scott Holstein Sale, Ft. Scott, Kan.
Nov. 14—Holstein Calf Club Sale, Tonganoxie, Kan. W. J. O'Brien, manager.
Nov. 15—Breeders' Holstein Sale, Tonganoxie, Kan. W. J. O'Brien, manager.
- Poland Chinas.**
Oct. 3—Ezra T. Warren, Clearwater, Kan.
Oct. 4—Geo. Morton, Oxford, Kan.
Oct. 7—Jones Bros., Hiawatha, Kan.
Oct. 8—Dr. J. H. Lomax, Leona, Kan.
Oct. 9—Herman Groninger & Son, Bendena, Kan.
Oct. 6—Ross & Vincent, Sterling, Kan.
Oct. 11—H. E. Meyers, Gardner, Kansas.
Oct. 13—H. L. Glover, Grandview, Mo.
Oct. 14—A. J. Erhart & Son, Oregon, Mo. Sale at Savannah, Mo.
Oct. 16—Walter B. Brown, Perry, Kan.
Oct. 15—H. B. Walter & Son, Effingham, Kan.
Oct. 17—Adams & Mason, Gypsum, Kan.
Oct. 20—W. K. James, St. Joseph, Mo. Sale at Savannah, Mo.
Oct. 20—L. V. O'Keefe, Bucyrus, Kansas.
Oct. 20—F. M. Anderson, Holt, Mo.
Oct. 22—Fred G. Laptad, Lawrence, Kan.
Oct. 23—McClelland & Sons, Blair, Kan.
Oct. 24—Dubauch Bros., Wathena, Kan.
Oct. 29—C. M. Hettick & Sons, Corning, Kan.
Oct. 30—John D. Henry, Leocompton, Kan.
Jan. 21—H. B. Walter & Son, Effingham, Kan.
Feb. 11—Ross & Vincent, Sterling, Kan.
Feb. 25—Clarence Dean, Weston, Mo. Sale at Dearborn.

Durocs.
Oct. 22—Fred G. Laptad, Lawrence, Kan.
Nov. 7—Kempin Bros., Corning, Kan.
Feb. 11—John W. Pettford, Saffordville, Kan.
Jan. 22—Sisco & Doerschlag, Topeka, Kan.
Jan. 22—Sisco & Doerschlag, Topeka, Kan.
Feb. 24—Gordon & Hamilton, Horton, Kan.
Feb. 25—Kempin Bros., Corning, Kan.

Chester Whites.
Oct. 21—Chester White Pig Club Sale, Tonganoxie, Kan. W. J. O'Brien, manager.
Feb. 12—Henry Murr, Tonganoxie, Kan.

Spotted Poland Chinas.
Oct. 11—R. W. Sonnenmoser, Weston, Mo.
Oct. 29—George G. Eakin & Son, Delia, Kan.
Feb. 14—R. W. Sonnenmoser, Weston, Mo.

Poland China Sale

Orchardale Farm

Thursday, October 23, 1919

TWENTY-FIVE SPRING BOARS and
TWENTY-FIVE SPRING GILTS

by the noted sires

Big Bone Bob 99726 by Caldwell's Big Bob

McClelland's Big Jones 93611 by Gerstdale Jones

Model Big Timm 93514 by Dean's Big Timm

We will sell the tops of over 160 spring pigs sired by these three boars.

REMEMBER THE DATE—

Thursday, October 23

We will show you a splendid offering of big, stretchy, selected boars and gilts in this sale.

Send in your name for a catalog, and come to this sale.

W. D. McCLELLAND & SONS
Blair, Doniphan County, Kansas

THE STATES BIGGEST

Shorthorn Sale

BY THE SOUTHEAST KANSAS ASSOCIATION AT

Independence, Kan., Oct. 9

Consignments are from the leading herds in the territory and you will be able to get just what you want. Twenty high class Scotch females and bulls, some fit to go anywhere, Scotch-topped animals of elegant breeding and high merit, and some of the moderate priced kind. Practical utility will be found in the entire offering—something to fit any pocket-book.

- 40 Bred Cows without calves
- 18 Cows with heifer calves six to nine months old
- 16 Cows with bull calves six to nine months old
- 14 Cows with younger calves at foot
- 12 Bred Heifers
- 37 Open Heifers
- 12 Serviceable Bulls

Cattle will be sold in lots to suit purchasers and with a total of 200 head in the sale you can't afford to miss being there. Anything you may want is here. Write for catalog.

G. A. LAUDE, Manager, Humboldt, Kansas

KANSAS' BIGGEST 1919 SALES

300 HEAD

Three Great Shorthorn Opportunities

OLATHE, KANSAS,

**TUESDAY, OCTOBER 7
65—HEAD—65**

The Johnson County Calf Club heifers go into this sale—thirty-five of them.
The entire herd of Luther McKaig, Olathe, Kansas, is consigned to this sale.

TEN POLLED DURHAMS.

TWENTY-NINE COWS, some with calf at foot, others bred.
FOUR GOOD BULLS.

Twelve representative breeders will consign to this sale. For catalog write to

GEO. LORIMER, MORSE, KANSAS

OTTAWA, KANSAS,

**WEDNESDAY, OCTOBER 8
83—HEAD—83**

FIFTY COWS, many of them with calf at foot and rebred, others well along in calf.

TWENTY-FIVE OPEN HEIFERS that are suitable for calf clubs or foundation stock.

EIGHT FINE YOUNG BULLS.

Consignors: Barrett & Land, Overbrook; H. H. Churchill, Osage City; A. W. Cornelius Estate, Rantoul; A. L. & D. Harris, Osage City; R. H. Lister, Ottawa; W. O. Rule & Son, Ottawa; Jos. J. Sobke, Bushong.

For your catalog address

F. JOE ROBBINS, OTTAWA, KAN.

INDEPENDENCE, KANSAS,

**THURSDAY, OCTOBER 9
125—HEAD—125**

One hundred and twenty-five head, not counting calves at foot.

THIRTY-FIVE HEIFERS that are open right for calf clubs.

BRED HEIFERS.

BRED COWS.

COWS WITH CALF AT FOOT.

BULLS for the breeder and farmer.

Offering ranges from high class to medium. All can be suited. Write for catalog,

G. A. LAUDE, HUMBOLDT, KAN.

Perfect train service with no loss of sleep between sales. Over 300 to select from, all done in three days. The greatest chance of the season and special attraction to calf clubs.

The 1919 Models in Poland China Hogs

Sell in Sale at Grandview, Mo., Monday, October 13, 1919

LIBERATOR "The Phenom"

LIBERTY BOND "The Marvel"

Liberator, Liberty Bond, The Clansman, Giant Buster, Sheldon Wonder, Disturber's Giant

The Greatest Boars of the Breed Stand Sponsor for This Grand Offering.

Look at 'em. They are all of the same type. Forty head that are unparalleled in breeding and type. This offering is the paramount opportunity of the year. You can't afford to miss this sale.

Liberator The Clansman Liberty Bond

It is needless to expatiate on the merits of these sires. They have proven their greatness.

A sale that from every logical reasoning should mark a new milestone in Poland China progress.

They Are the Result of Breeding Genius

The Dams of This Offering Are Choice Individuals. Daughters of famous boars. We do not keep any sows that are not worthy mates for the great boars at the head of this herd.

Every Breeder in Need of a Herd Boar

owes it to himself and his business to investigate the boars in this offering before making the all-important decision of selecting the sire of next year's pig crop.

It's the Big Opportunity Sale of the Year

and the thoughtful breeder, the student of his business, will be on hand in an effort to own one of the really great boars and gilts of this offering. Come and spend a profitable day with us.

The Height of Breeding Achievement

LESTER H. GLOVER,

GRANDVIEW, MO.

An Unusual Opportunity. Don't Fail to Attend This Sale.

Send for Catalog and Come to This Sale. Remember the Date—Monday, October 13, 1919

H. B. WALTER & SON Poland China Sale

AT EFFINGHAM, KANSAS

WEDNESDAY, OCTOBER 15, 1919

We will offer a choice lot of Spring Boars and Spring Gilts by the following herd boars:

BUSTER KING—The March 28 yearling weighing now almost 800 pounds. "We have never seen a better yearling boar," the comment of every one who has seen him. He will be at the fair. Do not miss seeing him.

A BIG TIMM—The 1,150-pound son of the grand champion boar, Big Timm. He, too, will be at the fair. Watch for him. You never saw a better aged boar.

BOB'S INVINCIBLE—A son of the noted Big Bob Wonder, especially reserved for service in our herd. He is the right kind.

BOB WONDER—Also a son of Big Bob Wonder and the Kansas junior champion last year. Our show litter this year is by him.

Please send for catalog and come to sale.

H. B. WALTER & SON - EFFINGHAM, KANSAS

FARM AND HERD.

H. E. Myers, of Gardner, Kansas, has catalogued fifty head of selected and improved Poland China spring boars and spring gilts. They represent the blood of Liberty Bond, The Chancellor, Giant Joe, Big Joe, Liberty King by Giant, and The Craftsman. This offering promises to be the best ever sold from the Myers farm and probably is as good as any lot of Polands to go through any sale this fall.

J. P. Copening, of Iola, Kansas, owner of a good herd of pure-bred Duroc hogs, reports his herd doing well and a feature of his herd at this time is the choice lot of well grown out spring pigs, including some choice boars out of extra good dams and sired by Golden Orion 239687 and Indicator Chief 290295.

W. T. Hammond, of Portis, Kansas, owner of good herds of Shorthorn cattle and Poland China hogs, also one of the high

class flocks of Shropshire sheep in Kansas, reports his stock doing well. A feature of his fine flock of Shropshire sheep at this time is the choice lot of spring lambs and yearling rams sired by an imported ram.

L. H. Glover, of Grand View, Missouri, has catalogued fifty head of spring boars and spring gilts. Among this lot are a number of high class herd boar prospects that should go out to head Poland China herds. The nicely illustrated catalog is now in print. It gives a complete history of the Glover farm and Poland Chinas.

Ross & Vincent, well known Poland China breeders of Sterling, Rice County, Kansas, have catalogued forty-five head of Poland China spring boars and spring gilts, featuring the get of Sterling Buster, Model Wonder, Sterling Timm and other great sires. The catalogs are now in print. They give complete pedigrees of the entire offering.

M. F. Rickert, of Seward, Kansas, has announced October 11 for his fall sale of Poland Chinas. Mr. Rickert is not quitting the Poland business, but is selling off a splendid lot of breeding stock to reduce his herd. The offering will consist of true brood sows with fall litters and thirty spring gilts, eleven spring boars and one herd boar, Rickert's Big Jones, a hog that has proven a great sire of large even litters. The sale will be held on the farm one mile from Seward, Kansas.

W. D. McClelland & Sons, the well known breeders of big, thrifty Poland China hogs, have announced October 23 for their annual fall sale to be held on the farm near Blair, Kansas. This firm raised 160 head of the best Poland China pigs the writer has seen on one farm this year, and the twenty-five spring boars and twenty-five spring gilts catalogued for this sale are the pick from the herd. Catalogs are now in print giving complete pedigree of each animal in the sale.

C. S. Nevius & Sons, of Chiles, Kansas, are the owners of one of the good herds of Shorthorn cattle and Poland China hogs in Kansas. They now have over 100 head of Scotch and Scotch-topped cattle in the herd. They have sold breeding stock to start herds

in several states and have many customers. A feature of the herd at this time is an exceptionally good lot of bulls that should go out and head

George Morton, the owner of the tional Poland China boar, Morton's, has catalogued fifty head of spring boars and spring gilts for his October sale. Most of the offering will be sired by great boars, Morton's Giant, by a Giant. This hog was one of the boars of any breed and did more Poland China hog in the East than that ever went east. The strain is today the most popular breed has. His dam, Lady Lunker, the dam of Big Lill, Giant Buster, Liberty Loan, Giant Buster of Indiana, Buster by Big Buster 3d, Lady Lunker's Giant have proven a great and Morton's Giant is today one of the standing breeding Poland China of the breed.

The Southeast Kansas Shorthorners' Association will hold its fall sale at Independence on Wednesday, October 9. This show is made up entirely of the animals going into the big sale of the October 9. John R. Tomlin, president of the American Shorthorn Breeders' Association, will act as judge. The show is financed by the Commercial Association and by the Southeast Kansas Breeders' Association. A full classification with first, second and premium in each class obtains, and show with 150 entries is free to all to attend both show and sale.

We never realize the advantage of fall plowing so much as when the comes and finds us with more to do than can be done in season. The short growing season, the more important is to get as much plowing done as fall as possible.

A man robs himself if he does not make the best of his time.

Sonnenmoser Big Stock Sale

At Weston, Mo. Thursday, October 16, 1919

12 REGISTERED SHORTHORN COWS WITH SPRING CALVES AT SIDE.

100 HEAD REGISTERED SHROPSHIRE SHEEP.

4 REGISTERED YEARLING HEIFERS.

1 TWO YEAR OLD BULL AND 2 YEARLING BULLS.

2 REGISTERED PERCHERON STALLIONS.

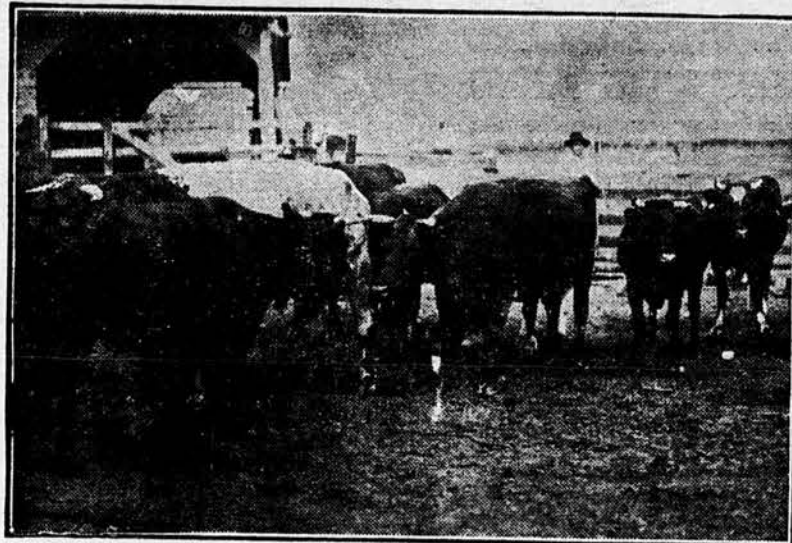
4 REGISTERED PERCHERON MARES SAFE IN FOAL

2 JACKS, 2 JENNETS—ONE WITH COLT.



60 HEAD SPOTTED POLAND CHINA HOGS

Consisting of 15 fall yearling gilts, 17 fall yearling boars sired by O and O. 8 tried sows, some have fall litters by side. 20 head spring gilts and spring boars. 1 two-year-old boar sired by Michigan Boy. Sale to be held right in town beginning at 10 o'clock a. m. There will be bargains for all. Don't miss this sale.



Part of the cattle in sale

R. W. Sonnenmoser, Weston, Mo.

Auctioneers: Col. Cise, Col. Town, Col. Carson.

BEST BIG SALE POLAND CHINA HOGS

Tried Sows and Some
Finest Gilts. Offered

This Fall in Sale,

October 20, 1919

At Savannah, Mo.

Read Ad in Next Issue.

W. K. James, Hillcrest Farm

Avenue City, P. O. Route 3
Andrew Co. St. Joseph, Mo.

Gronniger & Sons Poland China Sale

AT FARM NEAR DENTON, KANSAS

Thursday, October 9, 1919

Over Forty Years of Devotion to the Best Breed of Hogs
in the World. We Will Offer

**FIFTY HEAD OF HERD-HEADING BOARS AND HERD-
IMPROVING GILTS**

Our sale offering will include daughters of KING BOB by Long Bob; BIG LIBERTY by Futurity Rexall; MODEL TIMM 2D by Blue Valley Timm; BIG BOB 2D by Big Bob Wonder; WONDER PRICE 2D by King Price Wonder; BUSTER OVER, the greatest son of Giant Buster; GERSTDALE BIG BONE, MEISNER'S GIANT, BOB WONDER, STERLING TIMM and A BUSTER.

EVERYTHING IMMUNED

Please send for catalog and come to our sale. We guarantee a good offering.

Herman Gronniger & Sons
Bendena, Kansas

SALE HELD ON THE FARM NEAR DENTON, KANSAS

HOLSTEIN CATTLE.**HOLSTEINS!**

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

T. R. Maurer & Co.

EMPORIA - - - - KANSAS

Collins Farm Holsteins

A chance to purchase 40-pound breeding. We have choice sons of the great 40-pound bull, Vanderkamp Segis Pontiac, for sale. The dams of these bulls have creditable A. R. O. records. Price reasonable. Write or come and see our herd.

Collins Farms Co., Sabetha, Ks.

PRACTICALLY PURE BRED HOLSTEIN CALVES

Six to eight weeks old, nicely marked and excellent individuals, from registered sires and choice heavy milking cows, \$30 each. We pay express.

CLOVER VALLEY HOLSTEIN FARM WHITEWATER, - - - WISCONSIN.

SEGRIST & STEPHENSON, WOLTON, KANSAS
Breeder exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

HOLSTEIN BULLS

For Sale—One coming yearling bull, sired by a 22 1/4-pound dam, production 14,490 pounds milk, 480 pounds fat in 253 days. Priced to sell.

JAY B. BENNETT - HOLTON, KANSAS

BRAEBURN HOLSTEINS

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

H. B. COWLES
606 Kansas Avenue Topeka, Kansas

BUTTER-BRED HOLSTEINS

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

J. P. MAST, - SCRANTON, KANSAS

-FOR SALE-**Large Red Close-Up Springers**

In carload lots, also registered and grade Holsteins. Beck's Dairy, R. 9, Wichita, Kan.

DUROC JERSEYS.**Woodell's Durocs**

A choice lot of extra well bred gilts bred for late farrow. Few fall boars.

G. B. WOODDELL, WINFIELD, KANSAS.

PETFORD'S DUROCS

FOR SALE—Fifty spring pigs by the grand champion, Model Ally, Illustration Orion 3d and General Pathfinder, out of my best herd sows. These boars are good and priced to sell. Send for catalog. Bred sow sale February 14.

JOHN W. PETFORD, Saffordville, Kansas

DUROC BOARS

FOR SALE—Fifteen choice spring boars and one fall yearling that are too good to send to market. Priced at \$60 to \$80 for spring boars, \$100 for fall yearling. First check or draft gets choice. Guaranteed right and of choice breeding.

S. B. REFLOGLE, Cottonwood Falls, Kansas

DUROC BOARS

May farrow. Sires, Golden Orion 239687 and Indicator Chief 290295. Nice high-back boars. \$40 each. First check gets choice.

J. P. COPENING - IOLA, KANSAS

MULEFOOT HOGS.**KNOX KNOLL MULEFOOTS**

Nothing for sale but Springing Gilts. Orders now taken for September litters. One boar of serviceable age.

S. M. KNOX HUMBOLDT, KANSAS.

HORSES AND MULES.**PERCHERON HORSES**

For Sale—Three 3-year-old mares, two 2-year-olds, three aged mares with spring colts. Two yearling stallions priced to sell.

L. E. FIFE, NEWTON, KANSAS

Percherons--Belgians--Shires

My stallions have been again awarded premier honors at the State Fair. Show horses and real herd-heads for sale. **FRED CHANDLER, Rte. 7, Chariton, Iowa.** Above Kansas City.

RED POLLED CATTLE.**RED POLLED BULLS**

Twelve head coming two-year-olds and twenty head of coming yearling bulls. This is an extra nice and well colored bunch of bulls sired by ton sires. Inspection invited.

E. E. FRIZELL & SONS, FRIZELL, KAN.

RED POLLED CATTLE

For Sale—One 3-year-old herd bull, two yearling heifers and a few cows. Come and see my herd.

J. H. FERGUSON - GYPSUM, KANSAS

RED POLLS, BOTH SEXES, BEST OF BREEDING.
Charles Morrison & Son, Phillipsburg, Kan.

POLAND CHINAS**Barnsdale Polands**

For Sale—Poland China gilts bred to Wonder Price and Jumbo Ulian. Also a few choice spring boars, priced reasonable. Write or come and see my herd.

R. L. Barnes, Grenola, Kansas

CLINTON HERD

BIG TYPE POLAND CHINAS
Is ready to ship you a spring boar that will make you a real herd boar, sired by Giant Buster's Equal. Will sell a few trios not related. We have satisfied customers in 25 different states and can satisfy you. Everything immune and we record them.

P. M. Anderson, Holt, Missouri

DEMING RANCH**POLANDS**

The blood that breeds on hogs that make good. Strong in the blood of Big Bob Jumbo. For sale, a lot of early boars. Come and see us.

Deming Ranch, Oswego, Kan.
H. O. Sheldon, Herd Manager

MYERS' POLAND CHINAS

Large spring pigs in pairs or trios, priced to sell. Write your wants. Annual fall sale October 14.

H. E. MYERS - GARDNER, KANSAS

BIG-TYPE SPRING BOARS AND GILTS.
Priced reasonable. Registered. Immuned. Write Marmion McWilson, Rice, Kansas.

POLAND CHINA BOARS

For Sale—25 Spring Boars by Giant Luner by Disher's Giant and out of Old Lady Luner, from my best herd sows. These pigs are good, the tops from 80 head, priced reasonable.

H. R. Wenrich, Oxford, Kan.

PIONEER HERD POLANDS

Black Buster and Columbus Wonder at Head of Our Herd

Two great sons of Giant Buster and Big Bob Wonder. For sale, a few choice gilts bred for September litters. Annual bred sow sale February 12, 1920.

F. Olivier & Sons
DANVILLE - - - KANSAS

JERSEY CATTLE.**BROOKSIDE JERSEYS**

REGISTERED JERSEY BULLS, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.

THOS. D. MARSHALL, SYLVIA, KANSAS.

ALLEN CENTER STOCK FARM

Registered Jersey bulls of choice breeding from high producing cows. Ready for Service. Priced low. U. S. Government tuberculin test.

TREDWAY & SON, LA HARPE, KANS.

SHROPSHIRE SHEEP**FOR SALE**

Registered Shropshire Rams, Yearlings and Lambs.

Also my Shorthorn herd bull, King Archer.

W. T. Hammond, Portis, Kan.

FOR SALE
A bunch of registered Shropshire rams ready for service, priced worth the money.
HOWARD CHANDLER, Chariton, Iowa.

SHROPSHIRE SHEEP

Twenty pure bred unregistered Shropshire rams for sale.

K. HAGUE PEABODY, KANSAS.

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

PERCHERON SALE

I will sell twenty registered Percheron Horses at Public Sale, WEDNESDAY, OCT. 15, 1919

Eleven Mares : Four Stallions : Five Colts

The mares are young and good individuals. All of suitable age are bred to Casino, Admiral Casino or Imp. Karnatio. The colts are sired by one of the above stallions. Admiral Casino 115951, a five-year-old black son of Casino 27830 (45462) will be sold. Three coming two-year-old stallions sired by Admiral Casino will be sold. Inquiries answered promptly. Send for catalog.

PERCY E. LILL - - - MOUNT HOPE, KANSAS

Kansas Shorthorn Breeders' Association

PARK E. SALTER, Pres.
Wichita, Kans.

G. A. LAUDE, Sec'y.
Humboldt, Kans.

SHORTHORN CATTLE

For Sale—A few young bulls and a few choice spring boars and gilts. We hold February bred sow sale and annual Shorthorn sale in June, 1920. Write us your wants.

C. S. NEVIUS & SON - CHILES, KANSAS

SHORTHORN CATTLE

Herd Bull, Sultan Seal.

175 in herd, Scotch and Scotch-topped. For Sale—Ten choice bulls, yearlings to 18 months. A few choice heifers and bred cows, priced reasonable. Come and see our herd.

Barrett & Land

Overbrook - Osage County - Kansas

SHORTHORN CATTLE.

Herd Bull, Nell's Goods by Silk Goods by Choice Goods. For Sale—A few young bulls, reds and roans. Come and see my herd.

FRANK GRAGG - DENISON, KANSAS

Snowdon Herd Shorthorns

For Sale—One herd bull and eight young bulls. Reds and roans. Priced reasonable. Write or come.

D. N. PRICE - BAILEYVILLE, KANSAS

SHORTHORN CATTLE

For Sale—Ten bulls, serviceable age. Twenty females from heifers and mature cows with calves at foot. Priced reasonable. Come and see me.

J. R. ELY - - - MARION, KANSAS

ALL SCOTCH SHORTHORNS

Herd headed by Walnut Type, a grand son of White Hall Sultan, and Silver Plate, a son of Imp. Bapton Corporal. A few young bulls for sale. **Robert Russell, Muscotah, Ks.**

MARKS LODGE

Shorthorn Cattle. Reds Exclusively. Fifty cows and calves—Lancaster, Diamond and Scotchman dams. Clipper Dale 652041 and Butterfly Lad 448517, herd bulls. A few Diamond bull calves and tried cows for sale at this time. Milk and beef prospects. **M. F. MARKS, Valley Falls, Kansas.**

SHORTHORN BULLS

For Sale—Six Pure Scotch Bulls. Four are sired by Prince Valentine 4th, one Queen Beauty, two Butterflies, one Cumberland, one tracing to Lady Susan. The dams of these bulls are all on my farm, also three Scotch-topped bulls 10 to 15 months old. Come and see our herd.

A. L. & D. HARRIS, OSAGE CITY, KANSAS

FEEDERS, ATTENTION

Five hundred feeders from Western Colorado will be exhibited at the Federal Fair at St. Joseph, Mo., September 9 and 10. A. L. Montrose, Col., who has the feeders at the International years in succession, exhibit one hundred Shorthorn feeders and quality. In part Shorthorn beef.

AMERICAN SHORTHORN BREEDERS ASSOCIATION
13 Dexter Park Avenue Chicago, Ill.

SHORTHORN CATTLE

For Sale—Five young Scotch bulls and head of females, bred or calves at foot.

H. H. HOLMES, E. F. D. 28, Topeka.

HICKORY POINT FARM SHORTHORN

Herd bull, Oxford Prince No. 75697A. Sale—A few young bulls. Come and see.

JOHN W. SHERWOOD, Dunavon, Jefferson County

SCOTCH SHORTHORN BULLS

FOR SALE.

Lavender King and Red Star

IN SERVICE.

HARRY T. FORBES, E. 8, Topeka, Kan.

HAMPSHIRE HOGS

Registered Hampshire Hogs—Sows and Gilts, bred or open. Choice spring boars, ble treated. **Geo. W. Eda, Valley Falls, Mo.**

SPOTTED POLAND CHINAS

SPOTTED POLANDS.
Last call for early boars. Order gilts.

T. T. Langford & Sons, Jamesport, Mo.

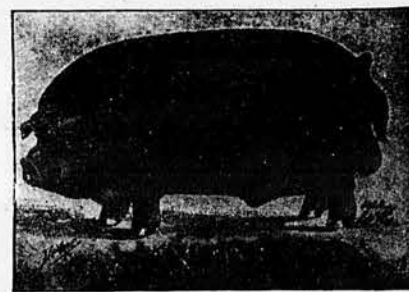
Poland China Sale

At Farm Seward, Kansas

Saturday, October 11, 1919

I am selling my entire herd of Poland Chinas, consisting of
Eight Tried Brood Sows with Fall Litters by Ricker's B Jones

Thirty Spring Gilts Sold Open
Eleven Spring Boars and One Herd Boar



Hogs are not fat, but in good breeding condition. I am selling a useful lot of breeding stock to reduce my herd. Please arrange to attend my sale. It will be bargain day you want good Poland Chinas.

M. F. RICKERT - - - SEWARD, KANSAS
Auctioneer—**P. L. Keenan**

AUCTIONEERS.

LIVE STOCK AUCTIONEER - Fifteen years' experience. Wire for date.
JOHN D. SNYDER, HUTCHINSON, KAN.

BREEDERS' DIRECTOR

ANGUS CATTLE.
Geo. Dietrich, Carbondale, Kansas.
RED POLLED CATTLE.
Mahlon Greenmiller, Pomona, Kan.
Horn Dorset Sheep.
H. C. LaTourette, Rte. 2, Oberlin, Kan.

Lomax Poland China Sale

AT FARM

Leona, Kan., October 8, '19

FIFTY HEAD OF FALL AND SPRING BOARS,
FALL AND SPRING GILTS

Sired by Model Big Jumbo, he by Model Big Bob. His dam
as Pawnee Jumbo. Also several by Model Black Wonder
Hillcrest Black Bone, Master Orphan, and out of such
good sows as Lady Prince, Lady Ben, Wonder Queen, D
Wonder by the noted sire, B Wonder. Timm's Lady, by Big
Timm, A Wonder Price.

This is the best lot of Polands I have ever offered and
guarantee that no one will feel disappointed if they will
come to my sale. Please send for catalog and arrange to
come.

DR. J. H. LOMAX
LEONA, KANSAS

Farm two miles southwest of Leona on Grand Island
Railway; seven miles from Denton on Rock Island Railway.

POLAND CHINA SALE

FEATURING THREE GREAT BOARS

Sterling Buster
Model Wonder
Sterling Tim

In our Big Fall Sale

Monday, October 6

The offering will include FORTY-FIVE HEAD, MOSTLY
SONS AND DAUGHTERS OF THESE GOOD SIRES.

REMEMBER, WE WANT YOU AT THE SALE

Send name for our mailing list so that a catalog may
be sent you.

ROSS & VINCENT
STERLING, RICE COUNTY, KANSAS
J. C. PRICE, Auctioneer

Poland China Sale

AT HIAWATHA, KANSAS

Tuesday, October 7, '19

FIFTY HEAD

Twenty-five Spring Boars

Twenty-five Spring Gilt

Sired by the noted JONES' COL. JACK, a sensational
son of the \$10,200 Col. Jack, a young fellow of splendid
individual merit and a breeder of real class.

NORMAN BOB by Black Bob by Big Bob, a line-bred
Big Bob boar that will please you.

JONES' JONES, a son of Gerstdale Jones, dam Silver
Tip by Big Orange, a rugged boar of the right type.

A great crop of Spring Pigs by these sires will be offered

Send for catalog and come to sale. Everything immuned.

JONES BROTHERS

HIAWATHA, . . . KANSAS

Myersdale Farm Poland China Sale

At GARDNER, KANSAS

Saturday, October 11th

50 HEAD SELECTED IMMUNED BOARS AND GILTS

Featuring tops of litters by

LIBERTY BOND, out of a full sister of the noted Mary
Pickford and Melba.

THE CHANCELLOR, out of a daughter of H's Mastodon.

GIANT BOB, last year's Missouri junior champion, out of
a daughter of Fessy's Timm.

THE COUNCILLOR, the noted son of W's Wonder out of
a daughter of W's Giant.

The world renowned LIBERATOR, also tops sired by the
four great sires in service in my herd—

BIG JOE

LIBERTY KING

BIG GIANT

THE CRAFTSMAN

Please send for catalog and come to sale.

H. E. MYERS
GARDNER, . . . KANSAS
J. C. PRICE, Auctioneer

WARREN'S POLAND CHINA SALE

At Clearwater, Kansas, Oct. 3, 1919

25 SPRING BOARS AND 25 SPRING GILTS BY

BIG LUNKER 103472

By Disher's Giant, dam Lady Lunker.

WARREN'S BIG TIM 292317

By the champion Big Timm out of Big Susie by Long Boy.

GIANT KING

By the Kansas champion A Wonderful King, dam Lady Giantess
2d by Long King's Equal

Herd of Selected Brood Sows

My breeding sows were personally selected by me from many of the top herds in the land, and include daughters of A WONDERFUL KING, LONG KING'S EQUAL, CALDWELL'S BIG BOB, THE BIG ORPHAN and sires of like note.

THIS IS THE PLACE TO BUY HERD BOARS

In this sale I shall offer sons and daughters of BIG LUNKER, WARREN'S BIG TIMM, BIG LIBERTY JONES, CALDWELL'S BIG BOB and THE HOOSIER by Big Liberty Loan. Send for catalog and come to sale.

EVERYTHING IMMUNED

EZRA T. WARREN, Clearwater, Kansas

J. C. PRICE, Auctioneer

MORTON'S POLAND CHINA SALE

At Oxford, Kansas, October 4, 1919

25 SPRING BOARS - - - - 25 SPRING GILTS

MORTON'S GIANT 85088

The Biggest Son of the Noted Disher's Giant. This Wonderful Breeding Boar is Out of the Noted Sow, Lady Lunker
Assisting Morton's Giant in my herd are

MORTON'S PROSPECT 99663

by The Guardsman, dam May Prospect 2d by Ruebel's Jumbo,
and

YANKEE BOB 99598

by The Yankee; dam Mary Prospect by Big Fred.

A Splendid Lot of Spring Boars and Gilts by Morton's Giant That Will Sell in This Sale

Among these top litters are one from Mollie Halfton, a great producing 3-year-old daughter of Big Halfton by H. Croft Halfton. Others out of Mary Prospect, dam of Yankee Bob; Big Bob's Beatrice by Caldwell's Big Bob; and Morton's Smooth Queen by Miller's Chief. Others of the spring piglets are by F's Big Jones and Morton's Chief by Miller's Chief out of dams by Morton's Giant and Fessy's Timm.

Have also thirty head of topy Fall Gilts by Gerstdale Jumbo by Gerstdale Jones and The Yankee.

Please Send for Catalog and Come to Sale

GEORGE MORTON, - Oxford, Kansas

J. C. PRICE, Auctioneer