

# KANSAS FARMER

For the improvement of the Farm and Home

Volume 57, Number 13. TOPEKA, KANSAS, MARCH 29, 1919. Established 1863. \$1 a Year

## GROW FEED FOR WINTER

Plenty of Forage and Silage Necessary for Wintering Cattle

**W**ESTERN Kansas might easily increase its live stock production, but it would require careful planning to insure ample reserves of feed being carried for winter feeding. To become a permanent business the element of risk in the matter of feed for the winter must be eliminated.

### A Tragedy in Western Kansas

"In Western Kansas the past winter tragedy occurred," said President Jarne of the Kansas Agricultural College in addressing the annual meeting of the Kansas Live Stock Association. "A large acreage in that section, ordinarily reserved for forage production, has been turned over to the production of wheat as a result of the government-guaranteed price on wheat. Notwithstanding the fact that a succession of dry summers had lowered the quantity of forage produced and the amount in that country was smaller than for years, it was believed that there would be an abundance of feed for cattle through using the large wheat acreage for pasture. The herds belonging to Kansas stockmen were even augmented by cattle brought from adjacent sections of other states. Moisture did not come, however, in time to make the wheat pasture count. The supply of any and all kinds of feed rapidly dwindled and when the heavy snows came in December the situation was desperate. Hundreds of cattle died, for there was little that could be done. Not only was there a great monetary loss, but also a loss of foodstuff. It would have been a wiser policy for the government to have offered a bonus on forage crop production in Western Kansas, rather than on wheat production.

"The experience of stockmen in Western Kansas the past winter furnishes a strong argument in favor of more forage crops and the silo. Corn stalks, sorghum stalks, wheat straw, even Rus-

sian thistles, are better than snow drifts for keeping cattle alive, and every year quantities of any one or all of these feeds can be collected and held for times of emergency. If land is prepared properly, and the right varieties of sorghums for silage planted, good yields can be produced eight years out of ten. When this sorghum crop is stored away in a pit silo, or other kind of silo, it will furnish the best possible insurance against drouth, short pastures, or long, severe winters. Silage can be kept in a silo for an indefinite period. Several years may elapse between the time of its storing and using, providing it is stored right, and it will be found in prime condition for feeding.

### Sorghums Superior for Silage

"Tests conducted by the Kansas Experiment Station at Manhattan have clearly demonstrated the superior value for silage of the sorghum crops such as kafir and the sweet sorghums. In a three-year feeding test with calves it was found that the average gain in weight per acre of silage fed was 1,039 pounds for corn silage, 1,013 pounds for kafir silage, and 1,376 pounds for sweet sorghum silage. Cottonseed meal was the concentrate used in this test and an equal amount was used with each kind of silage.

"The value of the sorghums as an insurance crop for maintaining stock cattle was forcibly shown the season of 1918 when our corn at Manhattan yielded three and a half tons, kafir seven tons, and sweet sorghum or cane nine tons of silage per acre.

### Sorghums Equal to Corn for Fattening

"In the use of the sorghums for grain production we have a splendid opportunity to push the fattening belt farther west and at the same time cheapen the cost of production. Tests conducted by the Kansas Experiment Station show

that for all practical purposes a pound of sorghum grains—kafir, feterita, and milo—is equal in feeding value to one pound of corn.

"In one test steer calves fed corn chop, cottonseed meal, alfalfa hay and silage gained while on feed 431.3 pounds a head, or at the rate of 2.39 pounds daily. Similar calves fed ground kafir, cottonseed meal, alfalfa and silage gained 424.1 pounds a head, or at the rate of 2.35 pounds daily. The difference in gain is so slight as to be practically negligible. The feed requirements for each hundred pounds of gain were as follows: Corn-fed calves, 490.38 pounds corn chop, 66.10 pounds cottonseed meal, 150 pounds alfalfa hay, and 397.07 pounds of silage; kafir-fed calves, 497.02 pounds of ground kafir, 67.2 pounds of cottonseed meal, 162.55 pounds alfalfa hay, and 401.7 pounds silage. These figures show that in the feed required to produce the gain there was very little advantage in favor of the corn.

"In the days when land was cheap, pastures plentiful, and feed and labor inexpensive, it was well enough to disregard the by-products of the farm, but the day has come in agriculture when wasteful practices must cease if profits are to be made. A few years ago creameries poured skim milk and butter milk down sewers, but creameries have learned to utilize the by-products of the industry. Not a gallon of skim milk is needlessly wasted today and thousands of dollars are saved to the industry through a means formerly ignored. In the utilization of by-products, the packing plants have created immense wealth.

"Straw is the most abundant by-product of Kansas farms available for feeding live stock. In producing a wheat crop, two pounds of straw are grown to every pound of grain. The straw pro-

duced with the Kansas wheat crop of 1918 amounted to not less than 5,580,000 tons. We have learned at the experiment station that a steer can be induced to eat from eight to fifteen pounds of straw daily when fed with succulent silage and these feeds together with a small amount of concentrated feed such as cottonseed cake or linseed meal, prove a most economical ration for maintaining a beef-producing animal.

"At the Fort Hays Experiment Station in 1916-17 two groups of breeding cows were wintered in a feeding test in which the cows in one group consumed as an average daily ration per cow, 103 pounds of alfalfa hay, 7 pounds of cane hay, and 8.8 pounds of wheat straw, the cost, on the basis of feed prices then prevailing, being 5.6 cents a day per cow. In the other group the cows consumed an average daily ration of 15.25 pounds of cane hay, 2 pounds cottonseed cake and 8.89 pounds of wheat straw, the cost of this ration per cow being 6.5 cents a day. The cows in the first lot gained at the rate of .64 of a pound daily and those in the second lot .65 of a pound.

"It is in connection with the cost of producing live stock that the agricultural college may be able to extend a helping hand. Some of you are especially interested in the production of feeders, others in finishing on grass, others in finishing in the feed lot, and still others in producing pure-breds, or seed stock. Whatever your line of production, you are all interested in how you may feed your animals more economically. I would suggest two factors in particular that will make it possible to reduce considerably the present cost of producing live stock in this state: first, a greater use of the sorghum crops; second, more efficient utilization of the by-products of grain farming."



GROUP OF HEIFERS IN DEVELOPMENT TEST AT FORT HAYS EXPERIMENT STATION.—FROM PHOTO TAKEN IN SPRING OF 1916, BEFORE ANY OF THE HEIFERS WERE BREED



# MECHANICS ON THE FARM

Items of Interest About Automobiles,  
Engines, Tractors and Motorcycles

## Cleaning the Cooling System

**A**FTER driving a car all winter in a climate which makes necessary the use of anti-freeze solution, the cooling system should be cleaned out thoroughly before the warm weather comes on. This is a simple task and in many cases a necessary one, because it seems that no matter what kind of anti-freeze solution is used, a certain amount of sediment is bound to settle in parts of the system or adhere to the cylinder and radiator walls in such manner as to interfere to a greater or less extent with efficient operation of the cooling system. Add to this the sediment that always results from heating water in any kind of vessel, from a teakettle to a steam boiler, and the reason for cleaning the cooling system is quite apparent.

Many methods of cleaning the cooling system have been suggested from time to time by various people, but some of them are questionable because there is danger of injuring the radiator on account of the caustic chemicals used. The following method can be recommended as being absolutely safe and at the same time will give the cooling system a thorough flushing that will remove practically all loose foreign matter.

First, drain the system by means of the pet cock in the bottom of the radiator. Then turn a hose in the filler cap of the radiator to admit a moderate stream of water. Next start the motor and let it idle at a fairly good rate of speed, leaving the petcock in the bottom of the radiator open all the time. This will not only flush out the water jackets and the radiator, but because of the fact that the motor is running the water pump will be kept in action and will send a good stream of water all through the system, flushing it out thoroughly.

After this is done, examine the hose connections from the cylinders to the radiator, to see that they are in good condition. It sometimes happens that anti-freeze solution will have a bad effect on the inside of the hose, while from the outside it will be apparently as good as ever. A fairly reliable test is to press the hose firmly between the fingers. If it seems good and firm it is probably in good condition. If it is weak and flabby it may be sucked together from the force of the water pressure and either partially or completely cut off the circulation of the water.

Some drivers seem to think that simple anti-freeze solutions made from water and alcohol do not need to be removed, assuming that the alcohol will evaporate in time and the addition of water will be sufficient. This is not true, because while the alcohol will evaporate, the sediment will remain. As a matter of fact, the cooling system should be flushed out once or twice a season, whether anti-freeze solution is used or not.—Buick Bulletin.

## Less Fault Found with Tractors

Several hundred tractor owners in the Dakotas were asked these questions:

"What do you find to be the principal advantages of the tractor for farm work?"

"What are its principal disadvantages?"

The replies received have been summarized in Farmers' Bulletin 1035, just published by the Department of Agriculture.

Saving in time, making it possible to cover the desired acreage within the proper season, is put first among the advantages by a large percentage of the farmers. Other advantages mentioned are:

Ability to do thorough work, especially in hot weather, when horses are at a disadvantage.

Saving in man labor, doing away with more or less hired labor and enabling one man to farm a larger acreage than he can with horses.

Economy.

This last advantage is mentioned by a larger percentage of Dakota farmers than of farmers in other states where similar investigations of the tractor have been made. This is doubtless because

the cropping system followed in the Dakotas is such that the tractor can be used to advantage for more of the farm work than in most other parts of the country.

The principal disadvantage of the tractor, according to the reports made by these farmers, is its injurious effect on moist soil. This difficulty is a serious one in districts where the soil is heavy and where it is necessary to do a considerable amount of work in early spring.

Difficulty of operation seems to rank next as a disadvantage. A large percentage of farmers emphasize it. Other disadvantages mentioned are expense of operation, undue increase in investment, and delays on account of engine trouble.

In comparing the reports upon which this bulletin is based with those obtained from tractor owners in various parts of the corn belt several years ago it appears that less stress is laid upon the disadvantages of the tractor in the recent reports than in the older ones.

## Fuel for Tractor

It takes about two and a half gallons of fuel an acre to run a tractor for plowing in the Dakotas, according to reports from several hundred farmers received by the United States Department of Agriculture. These reports cover two, three, four and five-plow tractors of various makes.

Slight differences in fuel consumption are found between machines of different makes, and there is usually a slightly lower consumption where gasoline is used than where kerosene is used. These differences, however, are so small that the average of two and a half gallons may be taken as coming very close to the actual acre consumption for any type or size of machine.

The more recent reports received in this regard indicate that farmers are having much less trouble than formerly in handling kerosene-burning tractors. Nearly two-thirds of the tractors on the Dakota farms reporting burn kerosene, and the results are apparently satisfactory, particularly in view of the fact that the present price of kerosene is but half that of gasoline. However, the advantage of gasoline in ease of operation and in the additional assurance it gives that the engine will keep running steadily makes many men prefer the more expensive fuel.

## Power Farming Machinery

In making a change from animal to mechanical power on any farm, there are several changes in the organization and management of the farm which help considerably in making power farming a success. In the first place, it is necessary to have machines for use with a tractor which were designed for this purpose. It is almost as ridiculous to expect a tractor to work satisfactorily with plows, harrows, etc., which were designed for horses as to expect to hitch a horse to a spade or rake which were intended for use by a man and be able to do a good job of plowing, harrowing, etc. A great many farmers in the past have endeavored to economize by using their horse gang plow behind a tractor so as to avoid discarding an implement which was not worn out and at the same time obviate the necessity for increasing their investment in equipment. The same has been true with harrows, disks, and other machinery. On a farm where the purchase of a tractor is at all justified, the purchase of suitable machinery for use with it is also fully justified. The horse-drawn plow was designed by the manufacturer to stand up under horse power. It was also designed to carry the weight of an average man when in operation. When a horse plow is placed behind a tractor, there is always danger of straining, twisting or even breaking the frame, and furthermore it is usually difficult to make it maintain its proper position and do good work because it is inclined to bounce around more or less without the weight of a man on the seat. Some farmers have tried to substitute weights

of various kinds for the weight of the driver, but this is not usually very satisfactory.—ARNOLD P. YERKES.

## Government Trains Mechanics

Inquiries continue to pour into the offices of the Federal Board for Vocational Education relative to the "farm mechanics" course evolved as a brand new occupation for disabled men of the army, navy and marine corps who are so badly disabled as to require vocational retraining at the hands of the board. Farm owners in many different sections have instantly recognized the practicability of the course and voice the need for men trained along the lines indicated.

The labor shortage has caused many a farm owner to realize that he must get out of the rut and substitute machinery for time-honored wasteful methods, but his own lack of knowledge concerning the upkeep and operation of farm tractors, motor trucks, automobiles, gas engines, electrical machinery and the like has been the principal barrier. The difficulty of obtaining competent help has been an equal obstacle. That the federal board has started training disabled soldiers in this new trade of "farm mechanics" has been glad news to many farm owners, long time victims of incompetent, untrained labor, who, nevertheless, have been steadily increasing their wage demands while not improving the service rendered.

## Spring Management of Bees

Spring management of bees is like the handling of an army. The commanding general must lay his plans very carefully. His supplies of all kinds must be in place ready for use at a moment's notice. It is during the winter season that the beekeeper should lay out his plans. All of his hives should be nailed up and painted. His supers, sections and other equipment should be put up and stored at or near the apiary where they can be utilized very quickly when the busy season arrives.

Some beekeeper has said that the time to prepare for a honey flow is the fall before. This will apply with equal force to the spring management. I will point out some of the conditions essential to good wintering, for without good wintering the bees cannot be in proper condition to take advantage of the honey flow the following spring.

First, I would have a young, vigorous queen which would supply the colony with a large force of young bees for winter.

Second, from forty to forty-five pounds of well ripened sealed stores.

Third, abundant insulation. Also protect the hives from the direct sweep of the wind. If all of these requirements have been fully carried out, the colony should come through the winter in the very best of condition.

It seems to me that the recent recommendations of Doctor Phillips have completely revolutionized that part of beekeeping which pertains to spring and fall management. He recommends that a colony in this locality be wintered in two ten-frame Langstroth hive bodies with four inches of packing on the bottom—six inches all around the sides and ends and eight inches on top.

Some time ago in one of our leading text books on beekeeping I was reading the recommendations on spring management. The author recommended twenty-five pounds of honey for winter. He also said that as soon as the weather was warm enough for the bees to fly they should be examined to see that all had enough stores and if any had less than two or three frames of honey they should be fed sugar syrup or given frames of honey from colonies which could spare it.

All of these theories, together with the practice of spreading brood in the spring, have been pretty well exploded. I was reminded of what Josh Billings once said: "What is the use of knowing so much you know ain't so?"

For several years past I have wintered my bees with a half depth extracting super on top. This is completely filled with honey, besides fifteen or twenty pounds below in the brood frames. This gives very nearly fifteen Langstroth frames. In most cases the bees will have sufficient stores and ample room for early brood rearing until the winter packing is removed. I have found by quite a number of years' experience that the more stores my bees have in the spring, together with empty comb for early brood rearing and the hives protected, the better the colonies

Beat it with a  
**FISH BRAND REFLEX SLICKER**  
Keeps out all the wet  
DEALERS EVERYWHERE  
Waterproofs. Absolute.  
are Marked thus—  
A. J. TOWER CO. BOSTON

**17 1/2¢ A ROD**  
164 styles, quality guaranteed.  
Order direct at wholesale prices. Shipped from Kansas, Nebraska, Texas, Colorado or California.  
Catalog Free. Write today. Geo. E. Ottawa Mfg. Co., 111 King St., Ottawa, Ill.

**GET-A-WITTE**  
At Reduced Price  
Buy on your own terms. Save \$15 to \$200. Catalog FREE.  
WITTE ENGINE WORKS  
1500 Oakland Ave., Kansas City, Mo.  
1800 Empire Bldg., Pittsburgh, Pa.

**Shear the Modern Way**  
You wouldn't allow 15% of any crop to go unharvested. So why stick to old-time methods of sheep and goat shearing? Shear the modern way with a Stewart Machine. Gets more wool cut more quickly. There are hand operated machines of larger ones. Price of Stewart No. 9 only \$14. \$2—pay balance on arrival. Write for catalog.  
CHICAGO FLEXIBLE SHAFT COMPANY  
Dept. 122, Twelfth Street and Central Avenue, Chicago

**\$22.00 Sweep Feed Grinder** **\$28.00 Galvanized Steel Wind Mill**  
We manufacture all sizes and styles. It will pay you to investigate. Write for catalog and price list.  
**CURRIE WIND MILL CO.,**  
610 E. Seventh Street, Topeka, Kansas.

BOOK ON  
**DOG DISEASES**  
And How to Feed  
Mailed free to any address.  
The Author  
**H. CLAY GLOVER CO., Inc.,**  
118 West 31st Street, New York

—OTTAWA—  
**Business College**  
OTTAWA, KANS. CATALOG FREE

WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

come up to the honey flow. If we are to secure a good crop of surplus honey, we must leave no stone unturned. We have all colonies in the best possible condition when the honey flow comes. As a means of securing a crop, the following hints may be of some benefit.

As the late G. M. Doolittle once said: "Have all colonies rich in stores" so that they will not slacken brood rearing. In early spring before natural pollen is abundant, feed some substitute such as rye flour, barley flour, or flax shorts. I place this in boxes ten or twelve inches deep at the south end of my bee house, where it gets the direct rays of the sun and is protected from the wind. Do not manipulate or disturb the bees unless absolutely necessary. Leave all winter packing on until the bees begin to require manipulation, which in this locality is about May 1.

I would also strongly condemn the changing of brood combs from one hive to another in spring, or for that matter at any time during the season, unless you are absolutely sure that the bees are free from foul brood.

In conclusion let me say that the early spring management is to leave the bees severely alone.—O. A. KEENE.

A German economist says: "Germany strove for a new order." Well, she got it, and it was "move on."



Editorial, Advertising and Business  
Offices, Topeka, Kansas

Entered at Topeka Post Office  
as Second Class Matter

Published Weekly by The Kansas  
Farmer Company, at Topeka

# KANSAS FARMER

THE FARM PAPER OF KANSAS

G. C. WHEELER, EDITOR

REPRESENTATIVES: E. KATZ SPECIAL ADVERTISING AGENCY

New York: 15 Madison Square, North  
Kansas City, Mo.: 1402 Waldheim Building

Chicago: Harris Trust Building  
San Francisco: Monadnock Building

SUBSCRIPTION RATES: One Year, \$1.00; Three Years, \$2.00.

Established by First State Board  
of Agriculture, 1863

Member Audit Bureau of  
Circulations

Oldest Agricultural Publication in  
Kansas

## THE HAYS ROUND-UP

The various cattle-feeding tests being conducted at the Fort Hays Branch Experiment Station, to which we referred last week, will end April 12, and as has been the custom for several years it will give wide publicity to the results. The indications now are that the comparison of silage and fodder feeding from measured acreages will show that an acre in the silo is equivalent to and as efficient as four acres in the shock. It is also worthy of note that during the heavy weather which has prevailed, the silage was at times easily accessible, while it was most impossible to get the fodder from the field.

A comparison between Russian thistle and alfalfa hay is of special interest to cattlemen of the western sections. In the years conditions are such that the thistle is about the only thing that makes any growth. A good many cattlemen have utilized the thistle hay in pinch, but no very definite information has been available as to its exact value. The cattle in the Hays test have eaten the thistle hay with a relish and appears that it will be not far from as effective as alfalfa hay. A speaking program has been provided, and a number of prominent stockmen will discuss live-stock problems. This is a meeting farmers and cattlemen, and particularly those of the western part of the state, can hardly afford to miss.

## HANDLING KANSAS-GROWN WHEAT

There is a possibility of our producing this year the biggest crop of wheat ever grown in the state. It is none too soon to be planning for the handling of this crop. We are to have another year of government control of wheat marketing, either through the authorization of a continuance of the Grain Corporation which handled the 1918 crop, or the creation of some other agency which will operate along similar lines. The creation of this Grain Corporation was necessary in order to make effective the government guaranteed price and to insure the proper distribution of wheat to fighting men and our allies. The method adopted brought much hardship to Kansas farmers and feeders and others because it entailed the rushing of practically all the crop to the great terminals as soon as it could be harvested and threshed. There was absolutely no incentive to hold wheat, and the result has been that Kansas mills operating in the midst of our great wheat-growing territory have not had enough wheat to keep them running at normal capacity, and much of the time our farmers could not get mill feed. Shipping wheat back from terminal warehouses is a most unscientific and illogical procedure, but it is the only way for Kansas mills to get wheat for their continued operation.

A year ago the State Board of Agriculture endeavored to get the Grain Corporation to put into operation a plan whereby some incentive would be offered for storing wheat locally so that it would be available to keep our mills running to capacity and to insure local supply of mill feed, but their efforts were without success. It is certainly to be hoped that some modification of the method employed this year may be worked out in the handling of the 1919 crop. Resolutions passed by the agricultural committees of the Senate and House of the Kansas legislature, which has just adjourned, call attention to the necessity for controlling grain and grain products in the Grain Corporation of the Food Administration, and further point out that a continuation of the present method of control and a continuation of the handling of grain and grain products in the 1919 crop.

The unscientific handling of the wheat

crop of last year, which resulted in the unnatural movement of wheat grown in Kansas to terminal markets, is pointed out, likewise the fact that the by-products of wheat milling which are so essential to the live stock interests of the state could not be obtained and that this unscientific movement of wheat made it impossible for the mills of Kansas to operate normally. The resolutions state that the Grain Corporation did not avail itself of storage on farms, at grain elevators, and in the mills of Kansas, instead moving the wheat as rapidly as possible to terminal markets where storage charges were paid which would have been acceptable and remunerative to owners of storage on farms, at grain elevators, and in the mills of the state.

In conclusion these resolutions urged that the agency appointed by the President to handle the wheat crop of 1919 be instructed to conserve in all producing territories enough wheat to keep the local mills operating at maximum capacity, and in order to do this that the agency handling the wheat be instructed to make arrangements to secure storage available in mills, at country elevators, and on farms, and that a just and reasonable amount be paid for this storage. It is further urged that whatever agency is appointed to handle the crop and milling product be instructed to apportion to the mills of Kansas from the purchases it may make, amounts of flour in the proportion of the capacity of Kansas mills to the total milling capacity of the United States.

Some method most assuredly should be adopted which would operate against the rushing of the whole crop to the terminal markets as soon as it can be harvested and threshed. We would suggest that our readers express themselves on the questions involved. It is highly desirable that there be a wide discussion of this matter of wheat marketing and continued government control as has been provided by congressional action. It will probably require further congressional authority to regulate the details, and your senators and congressmen should have their attention directed to the necessity for some plan which will hold more wheat in storage locally.

## DAIRY PROGRESS

The Holstein-Friesian Association of Kansas, which is holding its annual meeting in Topeka as we go to press, is one of the forces making for dairy progress in our state. We are making progress in this great industry, but it is being made largely through the efforts of too small a proportion of those interested in better dairy cattle and better dairy methods—the kind of men comprising the membership of the breed associations, marketing associations, and cow testing associations. We cannot get around the fact that the great mass of men milking cows are making too little use of their thinking ability. As we pointed out in addressing the Holstein Association at its annual banquet, the most important attribute or characteristic of the dairyman who is making a pronounced success of his business is his mentality. No other type of agricultural activity offers greater opportunities for the exercise of intellectual power. Failure to apply the mind diligently to the many problems involved is a most effective bar to progress. The dairyman to be highly successful must be a man of brains and he must use them. It is not the muscular work, but the mental, which counts most.

The fact that many are not studying these problems intelligently is shown in the results of the work of every cow testing association. In practically every herd will be found cows being milked at a loss, and the owner did not know it until it was brought to his attention as a result of the testing association work. Far too many are practicing methods of feeding and management which would prevent even the best of cows from making a profit. Bringing this to light is also a feature of the testing work. The chief function of the cow testing

association is to spread real dairy knowledge over a whole community. Such an association put Dickinson County on the map as a dairy county. A state breed organization like the one which held its annual meeting and association sale in Topeka this week is performing a splendid public service in sending the light into the dark places, promoting a wider use of good dairy cows, and the adoption of better methods of feeding, breeding, and general management. It largely hinges around the arousing of enthusiasm and the inspiring of ideals, for without a vision of something better there can be no progress, no mental stimulus. To many milking cows is a disagreeable and uninteresting task, but once begin to put some intellectual effort into the work and all this is changed. Work in which we are interested is never drudgery, and the more enthusiasm we put into it the greater will be the ultimate success.

One could not attend such a meeting of enthusiastic Holstein breeders as the one now in session and mingle with the crowd at the sale without imbibing higher ideals of dairying and of the possibilities of dairy cattle breeding.

## GIVE HIM TIME

Don't be discouraged if there are times when it looks as if your boy of twelve to fourteen is headed in the wrong direction. Be patient with him during the transition from boyhood to manhood. Give him time to find himself. It is just possible that your own parents had some anxious moments. Tid-Bits calls attention to the fact that Isaac Barrow, who turned out so splendid and noble-hearted a man, was, when a boy at Charterhouse, notorious chiefly for his stormy temper, proverbial idleness as a scholar, and pugnacious habits. Such unhappiness did he cause his parents that his father was wont to declare that "if it pleased God to take from him any of his children, he hoped it would be Isaac."

When the Duke of Wellington was a boy he gave his mother so much trouble that on one occasion she bitterly exclaimed, when asked what his future was to be: "He had better go into the army. A lad like that is only fit food for the bullets!"

## CO-OPERATE IN KILLING GOPHERS

The effort to wage a co-operative campaign against the various rodent pests of Kansas is worthy of the fullest support. Clearing the county of gophers is one of the major farm bureau projects in some of the Eastern Kansas counties. The introduction of alfalfa was a bonanza to the pocket gopher, which had been compelled to eke out a precarious living on the roots of our native grasses. With such an abundant and easily obtainable food supply as the alfalfa roots furnish, gophers have increased incredibly in numbers. In many grazing sections prairie dogs are also doing an immense amount of damage. C. G. Dueber, of the agricultural college extension service, states that in 1915 a conservative estimate of the damage done the alfalfa crop alone by gophers and prairie dogs amounted to five million dollars.

It has been demonstrated that any farmer may by persistence in following tried methods, free his own premises of harmful rodents, but he is helpless to prevent an early recurrence of the trouble unless he can secure the active co-operation of his neighbors. It is only by unity of effort that an entire county or township can be freed of any kind of rodent inflicting serious losses on the crops. By combining to poison the common pest at the same time and to purchase poison, the cost of treatment may be materially reduced, and when permanence of results is considered there can be no question of the economy of such co-operation. During the last four years plans have been conceived and put into operation which have effected the required co-operation of many thousands of farmers and have resulted in the

practical elimination of rodent pests over millions of acres of valuable agricultural land, attended by an enormous direct saving and followed by increase in crops produced. The eagerness with which farmers have availed themselves of the opportunity to join in concerted movements to obtain relief from these pests where the effectiveness of modern poisoning methods has been demonstrated, is most significant and gratifying, while the returns in increased crop yields upon the amount of labor and money invested in the community campaigns have exceeded all expectation. A successful fight against rodent pests requires that all local, state and national agencies concerned be brought into harmonious and effective co-operation and that methods of proved efficiency be used.

A gopher-poisoning demonstration was given under Mr. Deuber's direction on a farm six miles north of Topeka last week. In Shawnee County a determined effort is being made to destroy the gophers and save the waste which has been going on in the alfalfa fields every year.

## TUBERCULOSIS CONTROL

Sanitary officials representing a large number of the Middle West states met in Chicago last week to discuss model state legislation necessary to meet the provisions of the federal laws regarding indemnity for cattle killed upon reacting to the tuberculin test. It is regarded as highly important that the states should aid the federal government in the eradication of tuberculosis. Figures were given at this meeting showing that last year 2,800 carloads of cattle and hogs went into the tank at the different markets where there is federal inspection because of tubercular infection. It was urged that the various state sanitary boards promulgate rules and regulations relative to the interstate movement of live stock in harmony with the rules and regulations of the Bureau of Animal Industry as far as possible.

Every true American can commend most heartily the law passed by our legislature requiring English to be used as the medium of instruction in all the elementary schools of the state, both public and private. No practice has been more potent in preventing the development of the true American spirit in our foreign communities than the employment of a foreign language as the medium for elementary instruction. No foreign-born citizen who appreciates his citizenship should object to the employment of this means of making his children truly American. In addition it is required that a complete course of instruction in civil government, United States history and the duties of citizenship be given. It is also required that each public school secure a flag and flag-staff and display the flag regularly. The State Board of Education is empowered to enforce compliance with the new legislation.

The Food Administration announces that it has no authority to fix maximum prices on hogs. A conference was held in New York last week to consider the possibility of such action. All the Food Administration and other government agencies can do is to prevent any undue influence from affecting the free play of supply and demand. The market is now absolutely on a supply and demand basis.

"There are two kinds of economy—the kind that saves and the kind that spends. The first cost of a man, a method or a machine is of only passing importance. The really vital factor is how much each will earn over and above the man, machine or method now in use."—Exchange.

We desire to be classified according to our exceptional virtues; we are apt to classify our neighbor according to his exceptional faults.—HENRY BATES DIMOND.



# FARMERS AND PEACE LEAGUE

## Address Before Atlantic Conference of League to Enforce Peace

By GIFFORD PINCHOT

**F**ARMERS think easily in terms of world trade. The largest item in international exchange consists of products from the farm. It has been well said that food is the other side of every international transaction. Wheat, cotton and wool are the most world-wide materials of exchange. Of all men the farmer, therefore, is most concerned with that world commerce in the raw materials of food and clothing which, more than all else, draws the nations together.

It is well to remember that the most continuously active international organization in the world deals directly and only with the products of the farm—the International Agricultural Institute at Rome, founded by the prophetic vision and unquenchable faith of an American, David Lubin of California.

As yet no one can discuss with authority the interest of American farmers in the League of Nations. The National Board of Farm Organizations, through which the organized farmers of America speak, has not yet made its position known. I have, however, presented the views which follow to as typical a body of 150 American farmers as can be found in America. This body stamped them as correct. Furthermore, what the American farmers thought about the war will help to show what they are thinking about the League of Nations and the peace.

Living nearer to the earth than any other men, the farmers deal more closely with realities. Of all our people they are the most apt to be right in the long run, and least likely to take the shadow for the substance.

The farmers of America, under every sort of handicap, raised the vast crops without which the war could not have been won and gave to our armies a million fighting men. Yet with the direction of the war they were allowed to have nothing to do. They will not consent to be excluded from their rightful share in the direction of the peace, and of the vast international issues which must grow into settlement afterward.

Slow to get into the war, once in our farmers were there to see it through. Few of them were deceived by the talk, so common a few months back, that Germany could never be beaten, and that the time had come to compromise. There was no compromise about them.

The proposal to let the Germans off easy appeals to them little. The damage has been done, the loss endured. It is clear that if the guilty do not pay, the innocent must. And since Germany is to pay the bill, the farmers of America will agree that she must be allowed to earn the money, and that the only way to earn it lies in foreign trade. But there must be restrictions strong enough to prevent her from ever being able to win by trade what she lost in war.

Farmers were not carried away by the Russian formula of no annexations and no indemnities. The self-determination of peoples as an easy and certain cure for the world's troubles leaves them equally cold. They do not forget that the fathers of numberless American farmers fought and died to prevent the principle of self-determination from destroying our nation.

The farmers are for peace, for a permanent peace, a peace fitted to the conditions of the world in which we live, and not a peace adjusted to the dreams of dreamers who are not responsible for making their dreams come true. They will welcome a just peace, with reparation to the injured and punishment for the guilty, but they do not want to see generosity take the place of security and justice. They want this war to be the last. When peace is made they want it to work.

Farmers think long and change slowly. So does the world. Neither a man nor a nation can be remade by the signing of a name. The League of Nations will accumulate the confidence of the world a little at a time. If it is to live long its growth will be sure but slow.

Leagues of Nations are not new. The covenants which have made them have become scraps of paper in the past. If they have nothing but signatures behind them, they may become scraps of paper

again in the future. Therefore the farmers will look at first not for a highly organized new world state, but for less ambitious and more workable machinery, under which each nation in the League will be left to handle its own affairs, including its tariffs, much as it does at present.

Fortunately for us a League of Nations is already in existence, a league so powerful that it has defeated the greatest military power of all time, so united that its members have pooled their food and their ships, and so harmonious that they have even put their armies under the command of a single head. The League of Nations which defeated Germany exists now and is ready to be expanded cautiously and steadily, yet as rapidly as permanence and safety will permit, until, in the fullness of time, it may even be able to guarantee the peace of the world.

It will be easy for the farmers of America to approve the demand for real guarantees behind the coming peace. They will understand that France would not be justified in entrusting her safety to the hopeful promises of an untried league whose power to keep them is yet to be proved. Moreover, France must not lose in trade what she won in battle. She will demand real guarantees, and will disarm only so fast and so far as such guarantees will warrant.

They will realize that England, having found her safety in her fleet for centuries, will trust in it hereafter as heretofore. They will see that we ourselves cannot place our reliance for the enforcement of the Monroe Doctrine on an untested league, but for a time at least must maintain the strength to enforce it ourselves at need. As Colonel Roosevelt said, a League of Nations must be treated as "an addition or supplement to and never as a substitute for our own armed force," at least until success in practice shall authorize a greater trust.

Disarmament will come. With all our hearts we hope it will come quickly. But time and the experience of mankind alone can give to a League of Nations the strength to guarantee it. It was centuries after the first policeman before peaceful citizens found it safe to stop carrying arms.

Since our farmers know that Germany is the criminal responsible for the greatest of international crimes, they will not want to see her, at least until she has brought forth fruits meet for repentance, helping to govern a League of Nations organized to prevent her own particular crime from being repeated.

Moreover, American farmers will not expect our soldiers and sailors to form part of an international police force stationed abroad. They will perceive that such a force would have little to do, and they will not favor it. They want their boys at home.

Wars threaten but seldom, while the problems of peace are with us every day. The League of Nations, in my opinion, will have little to do with the direct prevention of war, but it should play a vast and beneficent part in promoting international harmony through the daily intercourse of peace. If the nations of the world are to live together in good accord, then the principle work of the League of Nations will not be to prevent war, but to guide, control, and promote the vast international activities of peace. Here, far more than in the limitation of armaments or an international peace, lies hope for the end of war.

Near the close of his administration President Roosevelt invited the nations of the world to join the United States in a world conference on the conservation of natural resources, with the purpose of preparing an inventory of the wealth of the whole earth. In the preliminary memorandum sent through the State Department on January 6, 1909, President Roosevelt said:

"The people of the whole world are interested in the natural resources of the whole world, benefited by their conservation, and injured by their destruction. The people of every country are interested in the supply of food and material for manufacture in every other country, not only because these are interchangeable through processes of trade, but because a knowledge of the total supply is necessary to the intelligent treatment of each nation's share of the supply."

Twenty-two nations accepted the invitation of President Roosevelt before he left the White House, among which were France, Great Britain, and the German Empire, and Brazil. By the concurrence of the Queen of the Netherlands, the conference was to be held at The Hague.

As was said in a note to the diplomatic representatives of the United States on February 19, 1909:

"With such a world inventory . . . the various producing countries of the whole world would be in a better position to operate, each for its own good and all for the good of all, towards the safeguarding and betterment of their common means of support."

Thus the conference was to consider questions by the solution of which all would gain and none could lose. It would necessarily have become a most potent means of promoting the best understanding among all nations.

When President Roosevelt took action looking to a world conference on the conservation of natural resources, he began a movement which, had it been carried on, might well have led to the league we seek today.

The diffusion of common knowledge of the resources of the earth, the awakening of mutual interests, the meeting of mutual needs, the mutual understandings and services, which were dormant in this plan, may now come into actual being as the strength and essence of that League of Nations which we hope will grow as a counterweight out of the terrible losses of the war. The league could begin its service to the nations in no better way than by taking up the world conference on conservation where President Roosevelt laid it down, and preparing a worldwide inventory of what the earth has to offer for the welfare and happiness of men.

## Canning Club Achievements

By Marian Mateer, Extension Division,  
Kansas Agricultural College

**W**E canned the Sas in Kansas." This is the record of the Mother-Daughter canning teams of the state, and all who attended the demonstrations staged by the county teams at the Wichita Wheat Show and Exposition last fall can certainly back up this statement.

How about those "corn dodgers"? Did you taste them? Did you see them baked? Do you realize that the Kansas Bread Club boys and girls have saved 58,790 pounds of wheat flour? Some record, that!

During the club year the six best teams in bread making and a similar number in canning were chosen for the purpose of putting on demonstrations at the Wichita Show and Exposition. The counties chosen for bread making were Rice, Ottawa, Jewell, Pratt, Jefferson and Woodson, while the fortunate counties for canning were Harvey, Rice, Anderson, Sedgwick, McPherson and Leavenworth. The real good done by these teams not only lasted through the duration of the exposition, but began many weeks before when practice demonstrations were held throughout their individual counties.

The canning teams consisted of a senior and two junior members, while the bread teams were made up of three juniors. Could they can? And could they bake? Well, I should say!

Two teams were on the stage at one time, thus making the contest keen. Club songs and yells were a further incentive. An enthusiastic and interested audience witnessed every demonstration. Some of the evenings were spent in regular club games and stunts.

The expenses of the teams were met entirely by the exposition. The children will never forget the wonderful time nor the grand sights. Further interest was

added by the presence of O. H. Benson, U. S. leader of boys' and girls' clubs. Even during that one short week everybody learned to admire and love Mr. Benson. He gave some remarkable talks on club work, which inspired the ambition of every child and grown person present.

The members of the teams were judged on the following points: Skill in work, subject matter, and personal record. Miss Agnes Morton, of Washington, D. C., acted as judge.

A fine club spirit was displayed by all the members when it was announced that Rice County stood first in bread making and Harvey county first in canning. These two counties were declared state winners and presented the banners and baby bonds. Every team made known its intention of living up to the club motto, "To Make the Best Better," and plans and schemes are already being laid for the next state contest.

The canning and baking were both done according to methods and recipes sent out by the club department in connection with the extension division of the Kansas Agricultural College and the U. S. Department of Agriculture. The demonstrating teams used these same recipes in their work at Wichita.

If there are no such clubs or teams in your county, find out the reasons and write to the club department of the Kansas Agricultural College for information. No county should miss this opportunity. Look into the matter. Ask your farm bureau and county agent about the work. Your boys and girls need to belong to some of Uncle Sam's clubs, and they need your backing. Here's your chance to make your neighborhood produce a state winning team and rank first in boys' and girls' club work.

## Poisoning Gophers

It is not difficult to poison or trap pocket gophers. Their activity is remarkable. It has been estimated that the runways made by a single gopher in one season if straightened out would measure a mile. Since the mounds of earth are only a few feet apart, a single gopher can make quite a showing. The gopher runways are usually four to eight inches beneath the surface and can be located by means of a probe made of any strong handle an inch in diameter and thirty-six inches long. A broom handle does very well. One end should be bluntly pointed. Into the other end a piece of three-eighths-inch iron rod should be fitted, protruding about fifteen inches and bluntly pointed, or an ordinary wagon rod serves the purpose. A footrest aids in probing the hard soils. By forcing down the iron rod near gopher workings or a foot or two back of fresh mounds, the open tunnel can be felt as the point breaks into it. The end of the instrument is then used carefully to enlarge the hole.

To poison them, prepare bait of sweet potatoes or parsnips by cutting them into pieces about one inch long and a half inch square. Poison the bait by sprinkling over it from a box about one-eighth ounce of powdered strychnine and one-tenth of this quantity of saccharine to each four quarts of the dampened bait. Drop one or two pieces of this poisoned bait into the holes opened into the runway by the probe and close the opening. A specially prepared poison bait which is sold at cost by the zoological department of the agricultural college is very convenient to use.

A cold frame is constructed in exactly the same manner as a hotbed, with the exception that no manure is placed beneath it to supply heat.



# JUDGING OF DAIRY CATTLE

Learn to Judge Cows by Their External Indications of Capacity for Milk Production.

**S**ELECTING milk cows from outward appearances is a difficult task and even the most skillful judge of dairy cattle would hardly dare to say whether a cow might be expected to produce 250 pounds of butter fat or 400 pounds. A good judge, however, can usually pick out the cows of very low production from among those of average or fair production or from among the high producers.

The basis of dairy cattle judging is the relationship between general form and appearance and production. It is pointed out by Prof. H. Barton, of MacDonald College, Quebec, in the Farmers' Advocate of Canada, that in development for production and reproduction animal form and appearance have undergone corresponding modifications. That power of production and tendency to reproduce manifest themselves externally admits of no doubt. To measure the relationship between manifestations and performance is the task of the judge. To do this in a general way is simple enough, but to do it specifically in individual cases may not always be possible. The important fact to note, however, is that a positive relationship between indications and results does maintain.

From these indications standards have been established. In them are included considerations of milk production, reproduction, breed peculiarities, etc. The would-be judge must first be familiar with what the standards exact. He must next be able to employ them as a means of measurement. This means he must be able to recognize representations of the standard or parts of it when exhibited before him. The third and often most important qualification is the ability to total his measurements in forming an estimate of an animal and to compare them when a decision between two or more animals must be made.

The various standards call attention to many details, all of which can be associated and grouped as parts of one or more important features of dairy animals. Not infrequently the amateur goes astray because of his tendency to consider minor indications in an isolated way instead of in conjunction with many others closely related. The breeder if he errs is likely to do so because of prejudice against, or partiality for some particular feature which has proved impressive in his experience. The animal with all its features including as they do innumerable details, must be considered as a whole, and particularly with due regard for blend, balance, and symmetry.

The essentials of a utility dairy animal may be briefly indicated as follows: **Size.**—Size may be mentioned first, not because it ranks first in importance but because it is one of the first things to be observed. It is a relative factor from a breed standpoint and should be considered as such. An undersized Holstein might pass as a representative Ayrshire, the same could be said of the Ayrshire and Jersey. There are at least three important reasons why size should be carefully noted: Breed standards are specific in regard to it; cows of at least medium size include the majority of the best producers; the tendency on the average is for size to diminish. Good size is, therefore, important. In estimating size, general scale comes first, but with it should be included substance and general type. In other words, it must be a desirable kind of size, a good proportion of height, length, depth and thickness.

**Strength.**—The general appearance of the animal is indicative of strength and vigor or a lack of it. The more important individual indications of it are the heart girth, head, back, quarters and hide. Mistakes are often made in rating the heart girth, condition and ani-

mal structure sometimes being misleading. The most vital part is what may be called the floor of the chest. If this is of good width and well filled in the fore flank just back of the lower part of the shoulder a certain amount of slackness or even falling away above need not be regarded as a very serious consideration, especially if there are other indications of health and strength apparent. Any undue narrowness or cramped appearance in the middle or bottom of the chest cavity is a positive indication of weakness, but all degrees of it can be found.

The type of head, indicative of strength in a dairy animal, is one of breadth, moderate length, width in the nose, with a well-defined expansion to form the muzzle, and a prominent eye of good size, bright but mild. The head that is very long and narrow or pointed should be avoided.

A strong back is one of moderate length from the shoulder to the hook bone, well braced with ribs of considerable spring and extending into a wide, strongly carried loin. A common defect in dairy cattle is undue length of back or middle. Judges in their ambition to get size and capacity very often overlook the danger of getting an animal out of proportion in this respect. The result is that a distinct weakness, associated with little capacity, sometimes characterizes winning animals.

An animal may be strong in other parts and weak in the hind quarters. From the standpoint of strength above it is important to select well-built quarters. The strong quarter is one that is straight on top to the drop of the tail and carrying its width well through.

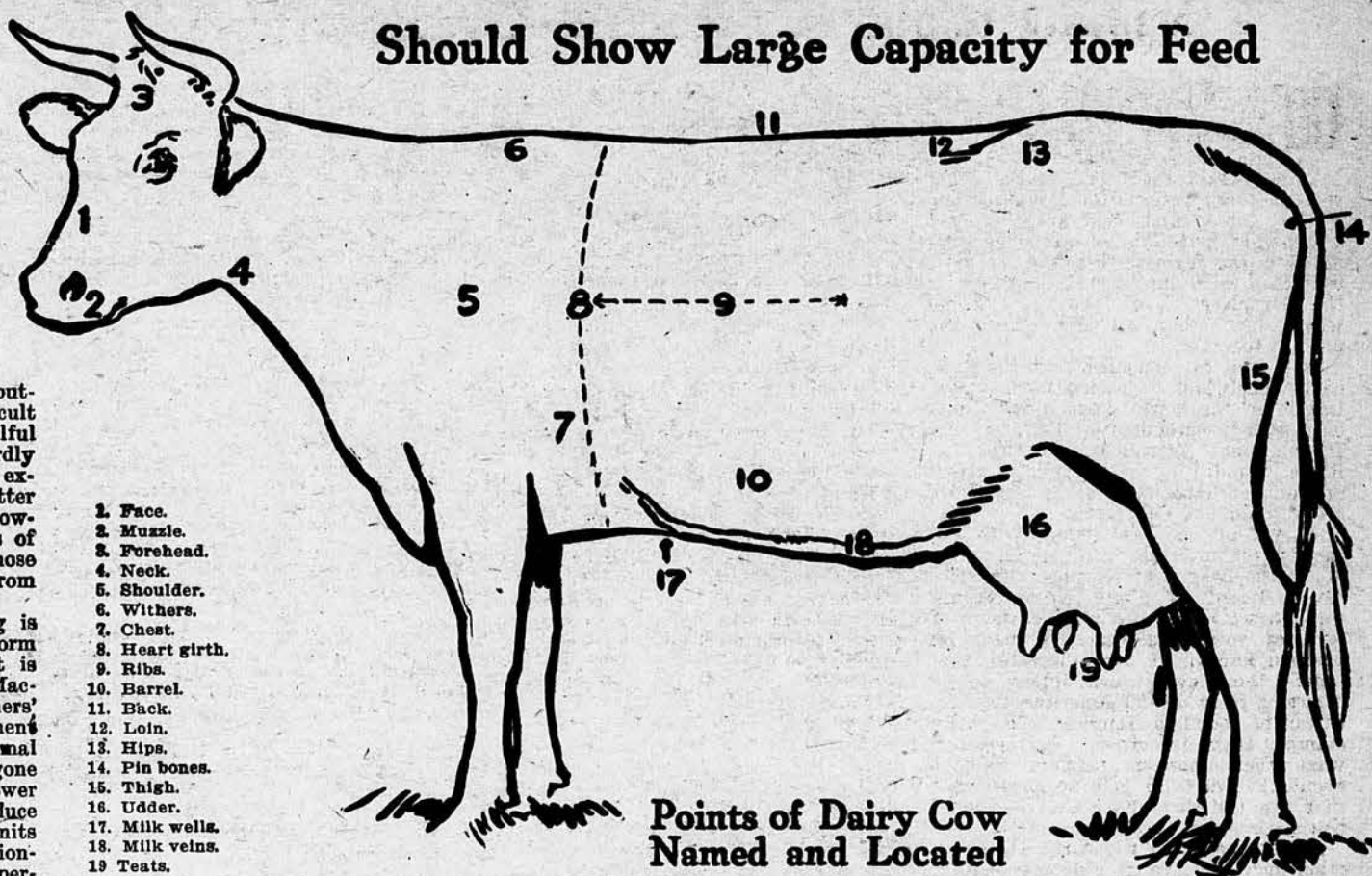
The hide with its covering is always a register of condition and vitality. An unduly thin hide lacking pliability, or a very harsh, tight hide is invariably associated with other evidences of weakness in some form.

The energy expended by a good dairy cow is an enormous amount. No other animal is called upon to do anything like as much work, not infrequently under conditions that tend to jeopardize her health, hence the importance of a robust constitution.

**Capacity.**—The amount of feed necessary for maintenance is about the same for all dairy cows of similar weight. The amount they are able to consume varies greatly. The difference between the two is available for making milk and fat. It is obvious, therefore, that the cow with big capacity is the one that can show the biggest return over and above the cost of keeping her.

The general size or scale has something to do with capacity, but in proportion to size the cow's middle, together with the indications of feeding vigor, are

Should Show Large Capacity for Feed



Points of Dairy Cow Named and Located

its true measure. Strength in the head as above described, particularly the size and character of muzzle, is splendid indication. Roominess throughout is highly desirable. Most important of all is the depth and spread of barrel. This depends upon the length and spring of rib. Rarely is a good cow shallow or even tidy in middle.

**Quality.**—This is a general term applied to the texture or fiber of the cow throughout. It may range from extremely fine to extremely coarse. Texture must be considered in conjunction with other things, size especially. It is an established fact that quality is a strong indication of dairy usefulness. In the extreme it may characterize lack of size and weakness. It is observed in the general appearance of an animal, the head, neck, bone, hide, hair, and general finish. All of these should be noted. Hide and hair are of special significance and should be handled, the best place being on each side of the animal over the last ribs and about half way up the side. In handling one should get the impression that there is an abundance of hide, which, together with the hair, seems pliable and almost velvet in character.

**Milk Organs.**—The udder, teats, milk veins and milk wells come under this head.

The essentials of a good udder are capacity, strength and milk-making texture. To obtain the maximum of these it must be large, therefore long, wide and deep, well balanced and glandular rather than of an unduly muscular nature, but firmly attached.

Udders that are not capacious, that are split up below into quarters, that are unequal in quarters, that do not extend well forward and well up behind, that are loosely attached, are objectionable. The texture of the udder is ascertained by feeling the general character of it, noting its size and shape, together with the quality of skin covering it and in the attachment behind.

The bottom of the udder should appear fairly level and have a teat of good size, but not extremely large, near the center of each quarter. The milk veins and milk wells, as they are called, vary a great deal. Of the two the milk wells' indication is the more reliable. Milk vein development, either in length, size or branching, or all of them, is a good indication. The wells are found in the form of distinct holes through the wall of the abdomen near the ends of the veins. An abundance of opening either in the form of one or more large wells or a number of smaller ones on either side is reliable evidence of production, as is also restricted opening unfavorable evidence. It must always be remembered that the milk organs proper should

be estimated in accordance with age, development, and, if possible, treatment of the cow.

**Character.**—Character is usually considered in reference to breed. There is, however, such a thing as character, apart from breeding peculiarities in dairy cattle. Sex expression and the appearance of what may almost be called intelligence is apparent in all really good dairy animals.

**Temperament.**—Closely allied to strength and the ability to supply energy for a given purpose is the temperament of an animal. The nervous energy which a dairy cow possesses makes it possible for her to undergo severe work and to devote herself to manufacturing milk rather than flesh. The ability and tendency to do this is manifested in the expression of the head and eye, the temper, and the general form. A nervous eye, an irritable temper or a phlegmatic appearance indicate weakness in this particular. A general angularity of form, which nevertheless may be smooth in finish and carry moderate fleshing, is the result and indication of correct temperament for dairy work.

**Breed.**—The standard for general utility is one and the same thing for all breeds of dairy cattle. The breed standards include certain ear marks which serve as the guide posts of the breed and within which a breeder must steer his course if he is to have true representatives, capable of propagating their kind. Jersey character is very striking and attractive, but apart from color a Jersey head on a Holstein is a disqualification and spells disaster. Color is one of the closely limiting factors in this connection, but other things such as horns, size, udder, teats, etc., clearly show breed distinctions which must be recognized.

**Type.**—Everything mentioned above as part of the standard is exemplified in what is called type. Some interpretations of type take it to apply to only general outline and character of form. The correct type must include all that is best, from either standpoint. One frequently hears criticism of a judge for breaking type or for not following type. Many variations are presented in the average show-ring and, while a judge should certainly be expected to look for and emphasize the established type with all that that includes, it will often be impossible for him to array animals as grades of type when viewed from a general appearance standpoint. Out of a number it is usually possible to select some that approach an all around well-balanced type, but the average judge will do well if he finds all his winning animals of this order. From there down many variations will appear, and the

(Continued on Page Nine)



# GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

**G**ARDENERS frequently inquire as to the advisability of using coal and wood ashes on garden soils. The use of coal ashes is permissible on heavy clay soils. However, they should be screened before being applied, and then should be spread evenly over the surface and thoroughly mixed with the soil as deep as it is plowed or spaded. Coal ashes have very little value as fertilizer, their use being mainly to loosen the soil and make it more workable. Wood ashes, especially those produced by burning hardwoods like hickory or oak, frequently contain as high as 7 per cent potash, and are valuable fertilizers. Those produced from burning soft woods, such as pine, and also hardwood ashes that have been exposed to the weather, have comparatively little value as fertilizer. About fifty pounds of dry, unleached hardwood ashes may be applied to a plot of ground 30 by 60 feet in size, but should be well mixed with the soil.

## Pastures for Hogs

Every successful hog man has demonstrated to his own satisfaction that good pasture is essential to economical pork production. It has also been shown by work at many different experiment stations over the country. As grain becomes higher in price it is necessary to find cheaper feed, and for this purpose pasture crops are indispensable.

The Missouri Experiment Station has carried on extensive experiments with forage crops for swine, and has found that it requires on the average little more than three pounds of grain to produce a pound of pork on such crops as alfalfa, clover, rape, sorghum and bluegrass. A little more than five pounds of grain was required, on the average, to produce one pound of pork, from dry lot feeding under similar conditions. This would mean a saving of around 40 per cent in the amount of grain fed. With pork at 12 cents a pound the average return for a bushel of corn fed to hogs on pasture was \$2.20 as compared to an average return of \$1.32 a bushel of corn fed in dry lot. The above results emphasize the economy of forage crops. They do not, however, tell the whole story.

The value of pasturing off the crop and by so doing returning the larger amount of fertility, must not be overlooked. It is also claimed by many that hogs which are run through the summer on forage and then finished in dry lot make greater gain in the dry lot than those grown through the summer in a dry lot rather than on forage. Then there is the advantage of supplying succulent feed which keeps the hog in the best physical condition. The use of pasture crops also aids in controlling diseases by making possible more sanitary conditions which helps keep the herd free from lice and worms.

While pastures in general are good, there are some which give larger returns than others. Alfalfa as a swine forage ranks at the very top. This is true for several reasons. It has a long growing season and hence furnishes pasture early and late. It is drought resisting, growing luxuriantly when many other crops can not grow for lack of moisture. The composition of the plant also makes it especially fitted for balancing a corn ration.

Clover ranks next to alfalfa as hog pasture. Its composition is very similar to alfalfa. However, it can not be pastured as early nor will it maintain as many hogs per acre as alfalfa. The crop fits well into corn belt rotations and may be very profitably harvested with swine.

The best annual hog forage is, without much question, to be had by seeding as early as possible in the spring either with Dwarf Essex rape or a mixture of rape and oats. The oats may be put in with a grain drill, using not more than one bushel of oats per acre, the rape then being broadcasted at the rate of six pounds an acre and the seed covered by harrowing lightly. There is no annual forage which will produce more pounds of pork an acre than will rape and oats. This crop has given excellent results when compared with other hog pastures by the different experiment stations. Your experiment station can

supply you with more detailed information concerning it.

Bluegrass or sorghum are also to be recommended. Bluegrass comes early and late, but takes a rest during hot dry weather. A field of sorghum is very valuable for this hot dry spell when other crops are not doing much growing.

## Home-Made Seed Corn Tester

For testing seed corn the rag doll tester is one of the most simple devices that can be used. It is also inexpensive.

The rag doll tester is made by taking a piece of muslin eighteen inches wide and of any desired length, depending on the number of ears to be tested. If the tester is to accommodate twenty ears of corn, a piece of cloth eighteen inches wide and four feet long will be ample. The cloth should be marked off in two and one-half or three-inch squares. These squares may be smaller or larger as occasion demands, but in general the three-inch square is large enough to accommodate as many kernels as will be used—usually not more than ten. At least six inches of cloth should be allowed on each end of the tester beyond the squares.

After the kernels have been removed from the ear and placed in the numbered squares, the sides of the cloth may be folded over and the "doll" may then be rolled up without fear of disturbing the kernels. The rag doll should be thoroughly moistened either by sprinkling with warm water or by immersing in a bucket of warm (not hot) water for two or three hours. After the cloth has been thoroughly saturated it can be put

away in a warm place. The rag doll must not be allowed to dry, as moisture is essential. A good method of maintaining the moisture in the rag doll tester is to put it in a shoe box or small wooden box and cover it with moist sawdust. As with other testers, the sprouting kernels must not become chilled, as this will not only retard but may actually prevent the germination of the grain.

## Break In the Colts Now

If the two and three-year-old colts to be worked this year have not been broken to harness, they should be given attention at the first opportunity. Begin easy with them, remembering that a work horse is often made or marred by the way he is handled in breaking. When they become reconciled to the feel of the harness, set them at light work. Hitch the colt or the team to a skid of some sort and give the first lesson in pulling. As soon as it can be done safely, hitch them to the wagon for light hauling. Patience may be required to get a colt to behave well in harness, but a good draft horse will be the result.

## Plant Cherry Trees

The planting of a few cherries in every farm fruit orchard was urged by O. F. Whitney, secretary of the State Horticultural Society, in addressing the Kansas Woman's Farm and Garden Conference. "If you have room for just one tree put out a cherry," said Mr. Whitney, "and I don't think you will

make any mistake. The Early Richmond I consider the best variety of cherry for us to grow. The Montmorency has a good many friends and it is well enough to plant two or three of these, for they come a little later, but it makes a dense growth of foliage and is more likely to be broken by the wind. The Early Richmond comes earlier and if there are going to be any worms it often escapes. Plant your cherries on high land. If you have only low flat land, back-furrow the land so that you have a ridge and plant your cherry trees on the ridge.

## Feeding the Orchard Pays

We would not expect to grow a grain crop without enriching the soil as we removed the plant food in the crops grown, and while we do not as a general thing remove much of the growth from the orchard, especially if left in grass, yet to get the best production we must return fertility. It is not entirely because the ground is growing poorer, but that the grass must have a good part of the moisture and available plant food and the trees do not get all they need. In order to give them more plant food we must either save that in the soil for them or give enough so that they will have their demands met in addition to what the grass takes. This is not easily accomplished and I doubt if many orchards produce fine fruit under this system, though many claim advantages for the sodded orchard over the cultivated orchard.

If I were intending to leave the orchard in sod at all, I would select a legume and then I would keep it cut pretty close. White clover grows low and adds humus with its leaves and nitrogen which is gathered from the air by the bacteria that work on the roots of all legumes. By cutting the leaves frequently the plants are checked and not so much plant food or moisture is required, and the leaves will form a light mulch. Whatever grass we let grow it will be an advantage to cut often to prevent so much loss of moisture and plant food, and to keep the decaying tops forming humus and mulch.

When we have let the ground be covered by a growth of grass we should give a liberal winter mulch of manure, and this should be disked into the soil some before growth begins in the spring. This will start the grass and trees off nicely, and then when the grass has made a good growth mow it and leave it where it falls. After the new grass gets started another top dressing can be applied, or at least one more application after some mowing during the fore part of the season. After midsummer it will not be necessary to apply any fertilizer, and later the mowing can be discontinued, for the trees will need to be checked in the fall and the new growth ripened up well for wintering. The fruit will color up better and be finer flavored if the forcing stops when it gets well along in size, and before it begins to ripen.

Wood ashes is a valuable fertilizer for the orchard. Ground rock phosphate or ground bone will add phosphorus. If the rock is used it should be mixed with the manure, for it does not have as much value when used alone. The manure helps to release the fertilizing elements. By letting it absorb the liquid manure in the stable it saves that element and is itself benefited by it. The legumes and the manure supply nitrogen enough, and the above are mineral elements to balance it.—ALBERT McVEX, Jackson County.

## Lime Often Beneficial

An application of about ten ordinary ten-quart pailfuls of hydrated or air-slaked lime to a plot of garden ground 30 by 60 feet in size will generally prove beneficial. Lime has the effect of loosening and pulverizing any heavy clay soil, and of binding loose, sandy soils. Lime also corrects any sourness in the soil due to lack of drainage, but in a case of this kind proper drainage should be secured.

Lime should always be applied to the surface, and in no case should it be put on the land at the same time as commercial fertilizer.

## SPRAY SCHEDULES FOR APPLES—1919

### Insects or Fungi

1. San Jose scale  
Other scales

### Dormant Spray

In late fall, during warm days in winter, or in early spring before the leaf buds open.  
Lime sulphur 5 gallons to 50 gallons of spray.

2. Apple scab.  
Cedar rust  
Curculio  
Canker worm  
Tent caterpillar

### Cluster-bud Spray

When the blossom buds first show pink.  
Lime-sulphur  $1\frac{1}{2}$  gallons, arsenate of lead paste 2 pounds, or powder 1 pound to 50 gallons of spray.

3. Codling moth  
Curculio  
Canker worm  
Apple scab  
Cedar rust

### Calyx-Cup or Petal-Fall Spray

When the petals are from one-half to two-thirds fallen.  
Lime-sulphur  $1\frac{1}{2}$  gallons, arsenate of lead paste 2 pounds, or powder 1 pound, to 50 gallons of spray.

4. Codling moth  
Apple blotch  
Curculio  
Canker worm

### Second Codling Moth and First Blotch Spray

Fourteen days after calyx-cup spray.  
Bordeaux mixture, 3:4:50 formula, with arsenate of lead paste 2 pounds or powder 1 pound, to 50 gallons of spray.

5. Codling moth  
Apple blotch  
Curculio

### Third Codling Moth and Second Blotch Spray

Four to five weeks after calyx-cup spray.  
Bordeaux mixture, 3:4:50, with arsenate of lead paste 2 pounds or powder 1 pound, to 50 gallons of spray.

6. Codling moth

### Second Brood Codling Moth Spray

Eight to nine weeks after calyx-cup spray.  
Arsenate of lead paste 2 pounds or powder 1 pound for 50 gallons of spray ( $\frac{1}{4}$  pound soap, well dissolved, to 50 gallons is useful in securing a thorough spread of the lead.) If blotch is present use Bordeaux and lead arsenate as in No. 5, but no soap.

7. Codling moth

### Third Brood Codling Moth Spray

When needed—determined by codling moth cake. Usually comes about first week in August.  
Arsenate of lead paste 2 pounds or powder 1 pound to 50 gallons of spray. Add soap as in No. 6.



# Profit From Good Cows

**A**N annual return of \$1,595.50 is the record of eight high grade Holstein cows milked by R. H. Graham of Salina. This is an average of \$199.55 from each cow. They produced in twelve months 53,195 pounds of milk. The price received was \$3 a hundred pounds.

Mr. Graham began his dairy venture two years ago on an eighty-acre farm. He bought nine heifers from a dairyman who was retiring, selling one later, so the year's record reported above is from the eight remaining. They were two-year-olds when the above record was made. Their production can be estimated to be about 25 per cent higher when they reach maturity. The highest production was 7,705 pounds, or almost four tons of milk. The eight averaged over three tons of milk each for the year.

A registered bull from a dam producing seventy-five pounds of milk a day has been purchased to head this herd. Mr. Graham is looking forward to getting 10,000-pound cows as the offspring of this cross. He sees no reason why every man specializing in milking cows should not have cows which with proper feeding and care will produce at least 6,000 pounds of milk in twelve months instead of 3,000 pounds, the present average.

We give these figures because they show what can be done with a small herd of high-producing cows. Mr. Graham is developing a specialized farm with milk and egg production as the two main projects.

## Specializing in Dairying

Dairying is becoming so important as a branch of farming and so many are trying to follow it that it is amazing how much ignorance exists concerning it. Many farmers are trying to follow dairying, but so few succeed that it is discouraging to contemplate. Many would-be dairymen stick with bulldog tenacity to the beef-bred mongrel and endeavor to use her for dairy purposes. If people want to use beef-bred cattle, why do they not raise pure-bred beef cattle and then stop milking them? As far as our best investigators can discover, a good dairy cow and a good beef cow cannot exist in the same hide. If we want beef cattle, then we must raise beef cattle and get away from the dairy work.

Most "cow-keepers" lay an excessive value on the beef-bred steer calf. Well, the value of the steer calf is more than swallowed up by the lack of high production in his dam and the lack of selling value in his sister. The way to get away from the steer calf is to raise pure-bred dairy-bred cattle that will have a value far beyond the feed that they consume.

People who go to Kansas City and buy springers and milk them until dry and let them go for beef are not dairymen; they are just "cow-keepers." It is just such men as this who are complaining of the high price of feed. The way to get away from the high-priced feed is to have high-producing cows and just disregard the high price of feed. There is a Holstein cow in North Topeka that now is giving ninety pounds of milk per day. That milk is retailed for 13 cents a quart. This cow's owner is not worrying about the high price of feed and he buys every pound of it. This is the kind of cows that make successful dairymen. This cow's milk is producing a profit over her feed, and her calf is worth \$200. Five hundred dollars has been refused for this cow. Do you know of a beef-bred cow that can show such a record? The beef-bred steer is obliged to die to show a record. This cow goes on from year to year.

It seems that people refuse to recognize the fact that farming is becoming a specialized industry. We farmers must be one thing or the other, and not a mixture. You never saw a machinist who was a success as a storekeeper.—WILL J. STEWART, Shawnee County.

## No Substitute for Butter

We cannot place too much emphasis on the fact that there is no real substitute for dairy foods. In a recent issue of the Creamery Journal it is stated a writer has attempted to show that butter fat values during the recent period of high prices were entirely too high, and as proof has cited the fact that if you inspected the farmers' purchases as they were starting home, in nine cases

out of ten you would find butter substitutes stowed away for use on their home tables.

"Although in our opinion," says the Journal, "this estimate is overdrawn, the fact remains that too many farmers depending on the dairy cow for support do this very thing. Then how can they logically insist that Mrs. Average City Housewife call for butter when the farmer producers are among the first to fall for the substitute?"

"Moreover, when city consumers are continually confronted with the advertising propaganda of the substitute people in street cars and window displays, newspapers and signboard ads, it is little less than can be expected if they take up the use of substitutes, unless at the same time they are shown the value of the real article."

"There is only one way that such propaganda can be met, and that is through a vigorous campaign of advertising the merits of dairy products. Actually, with the comeback that we have—there are no substitutes for dairy foods—it is a matter of deep concern and regret that those who are beholden to the dairy cow for support have not awakened sooner to the opportunity for pushing their business through the medium of advertising. Milk and its products have been such common articles of diet that we have taken too much for granted, and have thereby opened the way for the entering of substitute competition. Certainly our failure to advertise dairy products has not been because our products lacked merit or real value to advertise. If the oleo people or some standard automobile manufacturer or the makers of P. A. smoking tobacco, for instance, had half as much opportunity to advertise the merits of their goods as have the producers and manufacturers of dairy products, they would long ago have capitalized the situation and had the consumer literally swimming in milk, because they realize the benefits to be derived through consistent and persistent advertising."

## Manure Circulating Capital

Manure may be considered as part of the circulating or working capital of the farm. It contains plant food which came from the soil, but in that form has no market value as food for man or animal. By returning it to the soil its fertility can be converted into food products of value. The value locked up in manure should be kept in circulation. This cannot be accomplished by leaving it piled up against the barn or lying on a slope where it will slowly decay and leach away. This is really a lazy man's way of getting rid of the manure and the loss in plant food and money is great.

Get the manure back on the land just as quickly as possible. Money that lies around the house draws no interest and the chances of losing it are good. In the same way, manure that lies around the barnyard isn't doing any work and its "shadow grows steadily less."

How much manure should be applied per acre? Spread it just as far as it will go. A heavy application of manure usually produces more per acre than a lighter application, but ten loads of manure spread over two acres will produce more crop than if it is spread over one acre. It is probably a safe proposition to try to cover all the corn land with manure. In most cases, however, there will not be manure enough. Set the spreader for five or six loads per acre and make it go as far as possible. It will require more driving, but the increased yield will pay the bill.

Complaints are sometimes received that manure can not be applied to the soil without injury to the crop. This is usually due to the fact that too much is applied. Even a good thing may be overdone. See that the manure is evenly distributed and that each field receives its share in turn.

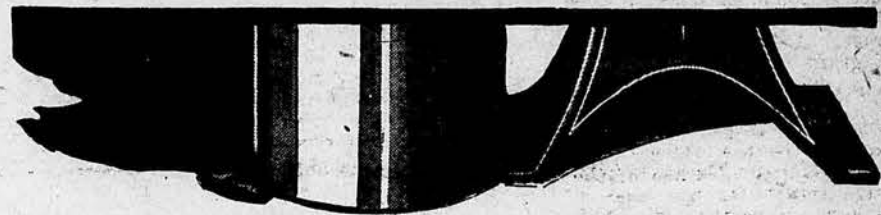
Deposit the manure in the soil and it will pay big interest. The beneficial effects of a single application of manure have been observed in some cases for more than twenty-five years thereafter.

## Hereford Calf Club

A Hereford Calf Club is being organized in Johnson County, Kansas. A thousand dollars has been offered by J. A. Moser of Kansas City as a premium fund for the first annual show of the club. The sale is to be held in October or November. At least thirty young-



## The Best Time to Buy a DE LAVAL CREAM SEPARATOR



**T**HE best time to buy a De Laval is when you need it most.

With cows freshened, or freshening soon, you will have more milk to handle.

And with butter-fat at present prices you can't afford to lose any of it.

If you are still skimming by the "gravity" method or if you are trying to get along with an inferior or "half-worn-out" separator, you certainly are losing a lot of valuable butter-fat.

So you see that the combination of larger milk supply and a high price for butter-fat can mean only one thing—you need the best separator to be had

## Right Now

The best cream separator you can get is the only machine you can afford to use these days, and creamerymen, dairy authorities and the 2,325,000 De Laval users all agree that the De Laval is the world's greatest cream saver. They know from experience that the De Laval is the most economical machine for them to use.

If you buy a De Laval you will get a machine that is tried and tested and true—a machine that will give you genuine service—and you will get the cleanest skimming, easiest turning, longest wearing cream separator that money can buy.

Order your De Laval now and let it begin saving cream for you right away. Remember that a De Laval may be bought for cash on as such liberal terms as to save its own cost. See the local De Laval agent, or, if you don't know him, write to the nearest De Laval office as below.

## THE DE LAVAL SEPARATOR COMPANY

165 Broadway, New York

29 E. Madison St., Chicago

sters are expected to enter the contest on or before April 1.

R. J. Kinzer, secretary of the American Hereford Breeders' Association, has expressed confidence that the organization of this competition will aid greatly in making this section an important Hereford breeding center.

The farm bureau announces that it

will lend support to the organization of a similar movement for the other breeds of cattle adapted to this country.

The use of blinders has been entirely abolished in the armies and, as an army veterinary surgeon says, "with the greatest benefit to the horses in efficiency, soundness and appearance."—Our Dumb Animals.



## MAINTAINING CROP YIELDS

**H**OW to maintain or increase crop yields is a problem of fundamental importance to the farming industry. The principal consideration in the maintenance of yields of Kansas crops is that of maintaining the supplies of organic matter and nitrogen, although in the eastern half of the state the supplying of phosphorus and of lime will be just as important. This statement was made by Prof. M. F. Miller of the Missouri Agricultural College in addressing the Kansas Crop Improvement Association at its annual meeting held in Manhattan during Farm and Home week.

"With reference to maintaining the supply of organic matter and nitrogen," said Prof. Miller, "it must be kept in mind that the systems of farming which have been followed thus far in Kansas have tended toward a rapid exhaustion of these materials. According to the data secured by the Kansas Experiment Station, soils which have been cultivated for thirty years have lost from 25 to 30 per cent of the original store of nitrogen and from 30 to 35 per cent of the organic matter. While such losses will continue on a diminishing scale during the next thirty years, providing the same farm practices are followed, before the end of that time the reduction of the content of these materials will reach an alarming condition.

"The exact methods to be adopted for controlling the supplies of nitrogen and organic matter will depend upon the systems of farming; that is, grain farming, live stock farming, or general farming, and the utilization which is to be made of farm residues. The most important principal in connection with these systems of farming will be the growing of more legumes, such as alfalfa, sweet clover, red clover or other legumes adapted to different parts of the state, while straw, manure, stalks and grain stubble must be returned to the land. Under grain farming special attention must be given to the return of the straw from the grain crops, and it will be highly desirable if some system of green manuring can be combined with this. In live stock farming better care of manure must form the keystone of the system, using this, as in the case of straw, largely as a top dressing on small grain, or in some cases it may be plowed under for corn, kafir or sweet sorghum. The loss of manure in Kansas is appalling. The statements commonly made that manure cannot be well used because of a danger of burning the crops, is largely a result of its improper use. Little is to be feared from manure when used as a top dressing on grain to be plowed under later after it is largely decomposed.

"As to phosphorus, the average of analyses to date shows that the soils of Kansas contain about one thousand pounds phosphorus in the surface seven inches of an acre, while the standard set up for a very fertile soil is two thousand pounds. This does not mean that the soils of Kansas are only half as productive as the soil chosen as standard, since the availability of phosphorus may often be high and crops may thus secure much more phosphorus than the analyses would indicate. It does seem, however, that the average Kansas soil, especially in the eastern half of the state, has much less phosphorus than it should have. Furthermore, the losses through grain farming and even through live stock farming are marked.

"The lime need of the soils of Kansas is at this time largely limited to the soils of the eastern third. This need must soon be met on many soils if crop yields are to be maintained, and especially if crop yields are to be increased. Furthermore, this need for lime will increase and gradually spread westward as the years go by, until finally the soils of the entire eastern half of the state will be more or less in need of lime. Fortunately the large supply of lime in the soils west of the center of the state is such that no attention need be given this matter for generations to come."

### Start Plants in Treated Soil

To be sure of obtaining healthy young plants of tomatoes, peppers, eggplants, cabbages, lettuce, and so on, for transplanting to the home garden or elsewhere, treat the soil in the seed box with boiling water before planting. Most all soils commonly used for seed beds contain one or more kinds of harmful molds or fungi.

Before treating the soil it should be

placed in the box ready for seeding. Make a few holes in the bottom of the box for drainage. Pour on the boiling water slowly at the rate of two gallons to a box of soil one foot square and four inches deep and at once cover with a newspaper to help hold the heat for a longer time. After a few days or whenever the soil has dried out enough the seed may be planted. Be careful that no diseased soil or anything else which might spread the trouble gets into the box.

Young plants grown in this treated soil not only have white, sound roots, but also have a healthy, vigorous appearance above ground. Besides this, seeds sprout better and the plants grow much faster than those planted in untreated soil.

### A Granger on Legislation

The legislature has ended its career and it seems there will be no shedding of tears by anyone because of its accomplishments. Many of the much mooted plans of the Governor were thwarted by a legislature which seemed to think it represented the people fully as well as any one man could, and what few concessions it gave the Governor were handed out in niggardly fashion. Great questions were involved in the program which the Governor had adopted, and it is very doubtful if some of the people whom he sought to serve had been questioned with regard to the matter. The main trouble with the program was that the Governor waited until after election to spring it on the people. No campaign having been on these questions, the representatives were rightfully slow to bubble over with enthusiasm for things so far in advance of public thinking. Many of the questions which were advocated directly affect farmers and farming, yet none of the members of farmers' organizations with whom we talked professed to know that such a program was forthcoming. The legislature was right in refusing to be led by a halter of the administration after a pussy-foot campaign in which no issues were involved. \* \* \*

The educational department of the state tried to place the educational facilities of Kansas all in the hands of the educators. Senate Bill 399 as rewritten would have placed all teachers on the Board of Education. This board has to do with the course of study for the big schools of the state and prescribes rules and regulations to govern such schools. The State Grange maintains that farmers who furnish a large supply of pupils to these schools should be represented on such boards. A similar attempt was made to have an all-teacher text book commission. Both these measures failed. Grange members want something to say about what their children shall be taught, and they feel that a representative of the parents should be given a place and hearing in the deliberations of these boards. \* \* \*

The quail bill was neglected in the senate until the last minute. It was House Bill No. 1, and passed the house early in the session. When it went to the senate that branch played horse with it until close to the end of the session, and then amended it so as to have a ten days open season. \* \* \*

With the coming issues of the next campaign it seems that there is great need for Grange activity. Three amendments to the constitution are to be submitted at the next general election. It behooves every Grange to have these questions up for discussion the coming two years and be informed so that an intelligent vote can be cast. There is no place where these questions can better be studied than in the country Grange hall, and I am sure the state master and state lecturer will be able to assist in obtaining facts for these discussions in a very short time. \* \* \*

Many Grange co-operative stores are being organized this year. Last year several started, but this year the war work will not interfere as it did then. Reports come from all the stores and elevator associations connected with the Grange that they all did a good business last year and expect to do more this year. The Grange does not advertise its co-operative business so much as its educational features, which we think are the most important, yet there are many Grange co-operative business associ-

## Use Only Pure Yucatan Sisal Binder Twine

**I**T operates smoothest in the machine, cuts cleanest, ties tightest, and is not affected by insects. Your binding remains tied. Use only the PURE YUCATAN SISAL TWINE. Do not use mixtures, for insects will destroy the mixed parts. Insist on the PURE YUCATAN. It costs less and saves labor and expense.

If you cannot get it from your dealer, we want to know it, because we are the co-operative organization of the Yucatan farmers who grow Sisal. We control and sell the whole Sisal production of the States of Yucatan and Campeche.

Write for sample of Pure Yucatan Sisal Twine, so you can know the real Yucatan twine when you see it.

Comision Reguladora del Mercado de Henequen

Merida, Yucatan, and 120 Broadway, New York

tions in the state.—ERNEST MCCLURE, Greeley, Kansas.

### Paint Your Screens

The time is fast approaching when the fly swatter will have to be rescued from its winter hibernation; also the fly screens will have to be fitted up for their summer service. What would we ever do without the swatter and the screen?

But it wouldn't be so necessary to "swat the fly," but the mosquito and chase the festive bug if the fly screens were protected from rust by an application every spring of a good screen paint; neither would it be necessary to buy new screens so often. It is merely another case of a stitch in time saving nine; only in this case it is a few cents worth of paint saving several more cents worth of new screen and the bother of putting it on the frames.

But a real screen paint should be used. An ordinary house paint merely stops up the holes and generally gums up the screen. We might as well have our screens look decent; we might as well be able to see through them while protecting them; a special screen paint is the answer. It costs no more than the wrong kind.

### Boys' Baby Beef Book

The third edition of the Boys' Baby Beef Book has just been issued by the American Aberdeen-Angus Breeders' Association, 817 Exchange Avenue, Chicago. This sixteen-page booklet is finely illustrated, printed in two colors, and contains besides the announcement of Secretary Charles Gray, ten articles from boy and girl champions whose "Doddie babies" have won state, interstate and national contests. An article by E. P. Hall, feeder of four international carlot grand champions, as well as the last steer herd grand champion, tells the youngsters how to pick out the kind of a calf that will win.

A statement from the Farmers' Bulletin of the U. S. Government on the Aberdeen-Angus' breed, as well as a statement by John Gosling, Kansas City butcher and lecturer on beef carcass, add weight to the letters from the boys and girls who have won fame with black calves. Pictures of Canadian, Indiana, Wisconsin, Texas and other winners are shown. Secretary Gray announces that the American Aberdeen-Angus Breeders' Association will give \$1,000 in premiums to calf club and baby beef boys and girls who feed Aberdeen-Angus calves this year. He points out that the boys and girls have done a big bit in winning the war and that they are on the right track toward a bigger and better agricultural future by following the calf club up into pure-bred beef cattle raising.

In getting out the Boys' Baby Beef Book, which is merely a title and not intended to leave the girls out in the cold, the American Aberdeen-Angus Breeders' Association has followed its lead in propaganda literature inaugurated some years ago when "Supremacy of Aberdeen-Angus" first appeared. Any teacher, county agent, bank or individ-

### Horse Sickness

When unclipped horses get overheated on warm spring days their long, sweaty coats of hair clog the pores and prevent them from throwing off perspiration. This often causes colds, pneumonia, asthma and similar troubles. They dry off quickly, keep well and do better work when clipped with a Stewart No. 1 Machine—\$9.75. Send \$2—pay balance on arrival. Write for catalog.

CHICAGO FLEXIBLE SHAFT COMPANY

Dept. 122, Twelfth Street and Central Avenue, Chicago

**Evergreens** For Lawns, Hedges and Windbreaks. Get your Evergreens from an Evergreen Specialist. 55 years in business. Illustrated catalog free. Evergreen Nursery Co., Sturgeon Bay, Wisconsin.

**GOHPER** TRAPS—Something the gophers can't cover up. Descriptive circular sent free. A. F. RENKEN, Box 602, Crete, Nebraska.

### Real Estate For Sale

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

**SHAWNEE COUNTY (KANSAS) FARM BARGAINS** Near Topeka, 240 acres, \$90. 160 acres, \$75. 80 acres, \$7,000. Half cash, balance five to twenty years. J. E. THOMPSON (The Farmer Land Man) Route 15, Tecumseh, Kansas

### GOOD FARM FOR SALE

320 Acres in Scott County, Kansas, on main highway near town. Half under cultivation, balance equally good. Permanent water supply capable of irrigational development. Reasonable terms to responsible parties who desire to purchase. No trades wanted. Address R. S. KELLOGG, 18 E. Forty-First Street, New York City.

Any boy or girl interested may get a copy for the asking.

### Let Us Plant Trees

Trees around a home add more beauty and comfort than anything else that costs so little. The moisture condition that we have this spring gives us the best condition for planting trees we have had for years. The Fort Hays Experiment Station nursery has already booked more orders for trees than is usual for this season of the year.

### Interest in Hays Meeting

Letters from a great number of stockmen living in various parts of Western Kansas show an interest in the sixth annual live stock round-up to be held April 12, that indicates that this meeting will bring a larger crowd to the Fort Hays Experiment Station than the record-breaking attendance of last year.

A negro soldier approached the major of the medical corps, attached to one of the base hospitals, and demanded: "Boss, how does you all do yoh cookin' in thah?"

"Well, Sam," replied the major, "we have all the newfangled equipment here. It's quite different from the field hospitals. The fact is we do our cooking by electricity."

"By 'lectricity, huh," retorted the dusky doughboy. "Majah, I begs yo' pahdon, suh, but yo' sho' ought to hab given dem beans anothah shock."



# FEED THE PASTURES

**P**ASTURES have ever been neglected. As a result they produce less and less each year. In the pioneer days the best land was cultivated and had much labor expended upon it. The stock ran at large upon the land which no one wanted. As the country became more thickly settled, the policy of turning to pasture the land which could not be used for anything else continued. The grass grew of its own accord, and seldom was any credit given for the milk or meat produced by animals getting their feed from this source. We are beginning to realize that our meat and dairy production depends to a large extent upon what the pastures yield. Even a high prairie native grass pasture will respond to manure, and yet on very few farms is any manure ever spread on the native grass pasture other than what the animals drop in grazing. On pastures so fertilized a heavier and stronger growth of grass will result and this will mean more meat or milk from the land kept for grazing purposes. In Virginia, says Joseph E. Wing in the introductory chapter of his book, "Meadows and Pastures," an acre of bluegrass pasture has produced 500 pounds of beef. He points out that a forty-bushel yield of corn, which is away above the average even in our best corn-belt states, would make fewer pounds of beef or pork.

We have been warned by our soil specialists here in Kansas that erosion, or soil washing, is causing one of our most serious losses of fertility on many a Kansas farm. Many a hillside slope would be improved by being seeded to grass. The soil would be held and filled with organic matter resulting from the mass of grass roots filling it. In the course of time it would be brought back to its original fertility and meanwhile would be producing each year a larger return in furnishing feed to the animals grazing upon it.

There is no place on the farm that will be more benefited by a little judicious fertilization than the pastures. There is no better way to fight weeds, for worthless weeds come in because the grass is perishing for lack of plant food, and the weeds, being especially adapted to adverse conditions, take its place. You can boost meat or milk production during the time of the year when animals are on pasture in either of two ways. One is to piece out the feed of the pasture with concentrated feeds or supplemental roughage and the other is to feed the pasture and thus increase the amount of grazing it will furnish. On the average Kansas farm probably both methods should be followed, but the tendency is to neglect feeding the grass and each year it becomes more necessary to supply additional feed to stock when the pasture might be becoming more productive each year instead of producing less.

In the feeding of concentrates there ought to be, and doubtless are, two big gains—first, that which comes from the grain itself; and, secondly, that which comes from the increased fertility value of manure produced. Normally, 80 per cent of the plant food in grains fed is voided in the excrement; but as to how much of this is effectively used is an entirely different proposition.

Similarly, there may be two big gains from fertilizing a pasture; first, in increased production of grasses and clovers; and, secondly, in bettered quality of the herbage—as in clovers replacing grasses and weeds.

Which method is the more economical? Which brings in the larger profit from the keeping of live stock?

At the famous Cockle Park pasture experiment field in England, we have a very fine comparison of results secured from these two practices. Fifteen years ago one pasture received the initial application of fertilizer, repeated since at three-year intervals. On the second pasture fertilizer was used but once, at the very beginning of the experiment, but concentrates have been fed annually since that time.

Here we have a sharp comparison between fertilizer alone and concentrates alone excepting the one application of fertilizer made fifteen years ago.

On the fertilizer pasture the average annual acre increase over the fifteen-year period was 130 pounds live weight of cattle, plus 50 pounds live weight of sheep. This paid for the fertilizer and left an annual gain from its use of 48s 11d per acre (about \$12).

The adjacent pasture, where concen-

trates were fed and fertilizer used but once, gave an average gain of 123 pounds live weight of cattle and 51 pounds of sheep—practically the same as on the fertilized pasture. The increase came within 2s 5d of paying for itself; or putting the case differently, there was a loss of about 60 cents an acre.

These results are suggestive of what might be accomplished by paying more attention to the fertilization of our pastures.

## Retraining Disabled Soldiers

Out of 787 cases of disabled soldiers approved for retraining by the federal board for vocational education, agriculture in its various branches is not first in numerical order, as is generally supposed. One hundred sixty-five cases have been awarded courses in commercial colleges, fitting them for office work and business careers generally. Agriculture does come next with 137 cases, which are divided up into the following: Agronomy, one; animal husbandry, ten; dairying, three; farming, 114; poultry raising, six; truck gardening, three.

The majority of those who took the agricultural courses are not, as popularly supposed, men who have suddenly become converted to the beauty of agriculture by reason of exercise in trench digging in France, but are farm boys who have realized the benefit of a more scientific knowledge, and who are desirous of returning to their old home places and apply the principles of scientific agriculture and management.

In addition to the agricultural courses, four are taking horticulture, three landscape gardening, and one bee culture. In the main, this education is given in the land grant colleges of various states. The student is allowed \$65 a month support fund while undergoing training, and allowance for his dependents are made during that time. The federal board now has under consideration a broadening of the whole field of agricultural education available for the disabled men.

## Plants Should Be "Hardened"

Before the plants are set in the garden, either from the hotbed or the cold frame, they should be gradually hardened to outside conditions by giving them more ventilation each day. Finally, remove the sashes entirely on bright days and replace them during the nights. The aim should be to produce strong, healthy plants that will make a quick start when placed in the garden.

The silo is merely a Mason jar about a million times bigger. It cans corn just as perfectly for the bossies as the Mason does for mother. The only thing lacking is a screw top. The silo might have had one, too, but the first builder knew from experience how hard it was to open a fruit-can cover, so he was canny enough to make the silo screwless.—Exchange.

"A stitch in time saves nine" applies to farm machines. Keep them in repair.

## Judging of Dairy Cattle

(Continued from Page Five)

final rating of an animal may put it where it looks like a conflict of type with one given precedence over it and the one to come behind it.

**Method in Judging.**—There is perhaps no best procedure in going about the judging of a ring of animals. It is worth while, however, to adopt some simple system and follow it. Special mention may be made of certain practices. There are a number of important positions. One of the first to take is that of viewing the general appearance of one or more animals, at the same time comparing them in this respect they may be viewed from the rear and front, particular note being taken of the heads. Usually fairly clear-cut impressions will be gained while making this preliminary examination, which will facilitate making comparison in matters of more detail. After the animals have been gone over in detail, in the various positions, it is advisable to see them moving one behind the other in a circle. Specific information in regard to each individual having been obtained, the animals on the move will invariably reveal something more, freedom and style in movement are in themselves important, and in this examination the judge has his best opportunity to make his final analysis.

# Ripen Your Corn Ahead of the Frost

In the Northern States, over one-fourth of the corn crop of 1917 failed to mature ahead of the frost, according to the U. S. Government's report. Much corn spoiled and tens of millions of bushels of soft corn had to be disposed of quickly at a great sacrifice in feeding value. Similar but smaller losses due to immature and soft corn occur every year. You can't control the season but you can hasten maturity by using

## Empire Fertilizers

They give the corn an early start, maintain steady vigorous growth, produce larger crops of well-filled ears and hasten the final hardening or ripening of the grain. Such a crop shrinks less, is worth more for feeding and brings the highest price as seed. Fertilizer is just as important for potatoes, tobacco, small grains, and other crops as for corn.

We have fertilizers with or without potash. The potash is soluble in water.

Our Agricultural Service Bureau will gladly help you solve, without charge, any of your soil or fertilizer problems. Our book "How to Make Money with Fertilizers" is interesting and instructive. We'll send it free with other booklets and bulletins if you will mention your leading crops. Write today.

If we have no agent in your town, we want one. Write for our nearest agent's address or ask for an agency for yourself.

The American Agricultural Chemical Company

## EMPIRE CARBON WORKS

501-B Commonwealth Trust Building, St. Louis, Mo.



## 1200 TO 1 BEAN

A Gigantic Wonder—over 200 pods have been grown on a single plant—all well filled, producing over 1200 beans from bearing pods up well from the ground, which literally load the plants; beans being pure white and of best quality. Plant in your garden or any good soil, after danger of frost, any time up to June 15 only 1 Bean in a hill, and it will mature a crop in about 80 days, ripening very evenly, and the growth and yield will simply surprise you. My supply is limited and I can offer only in sealed packets, each containing over 60 Beans with growing directions. Order early to be sure of them. Sealed packets 10c each; 2 pkts. 25c; 7 pkts. 50c; 15 pkts. \$1 postpaid. My New Seed Book is filled with High Grade Garden Seeds at lowest prices. It's mailed free. F. H. MILLS, Seed Grower, Dept. 68, ROSE HILL, N.Y.

# Make a Fireless Cooker

YOU CAN BUILD IT AT HOME

It Will Make the Meals Taste Better  
It Will Make Housework Easier  
It Will Save Money and Fuel

## The Fireless Cook Book Tells

How to Make It      How to Use It      What to Cook

The Fireless Cooker Cook Book is printed on the best book paper, has durable binding and contains over 200 pages. It also contains

OVER 200 BEST RECIPES

which may be used either with or without the cooker.

How to Get the Cook Book Free

Send us one subscription to KANSAS FARMER for one year at \$1.00 (new or renewal) and we will send you the Fireless Cooker Cook Book free and postpaid.

USE THIS COUPON

KANSAS FARMER COMPANY  
Topeka, Kansas.

I enclose \$1.00 for the Fireless Cooker Cook Book and KANSAS FARMER for one year.

Name . . . . .

Address . . . . .



## 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 6 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.

### SEEDS

**WHITE SWEET CLOVER—FINE QUALITY.** Low price. John Lewis, Madison, Kan.

**EXTRA GOOD RECLEANED SHROCK** kafir seed, \$3.50 per bushel. Sample on request. J. P. Nachtigal, Buhler, Kansas.

**ALFALFA SEED FOR SALE.** ANY quantity; three different grades. John A. Edwards, Eureka, Kansas.

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

**BLACK AMBER CANE, GOOD. HURRY.** \$3 hundred. Send sacks. Joe Smith, Montezuma, Kansas.

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

**EARLY ROASTING EARS—ADAMS EX-** tra early seed corn, bushel, \$5; peck, \$1.50; 12 1/2 c per lb. delivered at Piedmont, Okla. H. L. Nye, Piedmont, Okla.

**500 BUSHELS CHOICE SELECTED SEED** corn, Reid's Yellow Dent and Big 4 Early White, \$3.50 per bushel. Sacks free. Archdale Farm, Fremont, Nebraska.

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

**PURE GOLD MINE AND BOONE COUNTY** White seed corn, selected, shelled, graded, \$4 per bushel. Samples free. J. F. Feigley, Enterprise, Kansas.

**WHITE HULLED SWEET CLOVER** seed, \$13 per bu.; unhulled, 70 lbs., \$11. Sudan, 15c lb.; sacks, 65c. R. L. Snodgrass, Route 4, Augusta, Kansas.

**GOOD PINTO BEANS, RECLEANED,** \$7.40 per cwt. We ship from Lamar. We pay freight on car load lots. Also black amber cane seed, \$3 per cwt. In new bags. J. W. Hoover, Joycoy, Colorado.

**SWEET POTATO AND TOMATO PLANTS** Standard varieties, 100, 55c; 1,000, \$4.00; 10,000, \$35.00. I pay express and postage. Plants ready April 20. C. W. Sheffer, Box 25, Okmulgee, Okla.

**A FEW BUSHELS OF SEED CORN—** Carefully selected; good test; thoroughly acclimated to dry climates; grown in Ford County, Kansas; mixed variety. One bushel, \$3.50; three bushels, \$10. E. A. Gould, Wilroads, Kansas.

**GENUINE FROST PROOF CABBAGE** plants. Well rooted, winter grown in open field. Early Jersey and Charleston Wakefield, Succession and Flat Dutch. Postpaid, 25c for \$1; 50c, \$1.50; 1,000, \$2.50. By express, \$2 the thousand. Prompt shipment and satisfaction guaranteed. Union Plant Company, Texarkana, Texas.

**RECLEANED SEEDS—ALFALFA.** \$3.75 bu.; kafir, \$2.45; white millet, \$2.10; Siberian millet, \$2.75; Amber cane seed, \$2.15; Orange cane seed, \$2.35; Sumac, \$3.75; Schrock, \$3.50; seed corn, \$3.25; Sudan, 15c lb.; sacks free. We ship from four warehouses and save you freight. Order right from this ad. Satisfaction or your money back. Meier Seed Co., Russell, Kan.

**DWARF AND STANDARD BROOM CORN** seed, \$7.00; Red Top and Early Golden cane, \$6.00; Schrock kafir, Darso, Hegari, common millet, \$6.00; Amber, Orange and Bourless cane cream and red dwarf and standard maize, dwarf and standard kafir, \$5.50; alfalfa, \$18.00; unhulled sweet clover, \$21.50; hulled, \$26.50; Sudan, \$15.00; all per 100 pounds, freight prepaid; prepaid express, \$1.00 more. Claycomb Seed Co., Guymon, Oklahoma.

### CATTLE

**FOR SALE—GRADE HOLSTEIN COW** and heifers, good producers. Tuberculin tested. Edwin Nelson, Superior, Nebraska.

**FOR SALE—REGISTERED JERSEY** bull, Pogs Torono's Wise Owl, six months old. Sire's dam, "Owl's Design," highest record Jersey in Kansas. R. O. McKee, Marysville, Kansas.

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

### THE STRAY LIST.

**TAKEN UP—BY L. D. CONVERSE, OF** Odee Township, Meade County, Kansas, on November 27, 1918, one red cow, brand on left thigh. W. W. Pressly, County Clerk.

**TAKEN UP—FEBRUARY 12, 1919, BY** Martin Langan, Middle Creek Township, Miami County, Kansas, one red steer two years old, valued at \$40, weighing about 550 pounds; no marks or brands. C. M. McKoon, County Clerk.

### DOGS.

**AIREDALES, COLLIES AND OLD ENG-** lish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

### MISCELLANEOUS.

**ONE-MAN SLING. CHANGES HEAVI-** est hay racks. F. Lovering, Fremont, Neb.

### HONEY.

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

**DELICIOUS, LIGHT-COLORED, EX-** tracted honey gathered by our own bees from alfalfa and sweet clover. Guaranteed pure. Write for prices. Will accept Liberty Bonds at par in payment for honey. Frank H. Drexel, Crawford, Colorado.

### HORSES AND MULES.

**FOR SALE—FIVE GOOD JACKS, SEVEN** Jennets, 3 to 6 years. Joe Fox, Greeley, Kansas.

**PERCHERON STALLION—CANT USE** longer. Sell cheap. E. D. King, Burlington, Kansas.

**FOR SALE—THE SURPLUS STALLIONS** from small herd of registered Percherons. Lanyon Stock Farm, Gresham, Neb. Branch barn, Harrah, Okla.

### REAL ESTATE.

**LISTEN—WELL IMPROVED 640 ACRES,** near town, \$21 per; terms. McGrath, Mountain View, Missouri.

**THE CROPS PAY FOR THE LAND.** Good proposition for farmer of small means. Land in Southwest Kansas and Eastern Colorado. For particulars write Allen & Allen, Topeka, Kansas.

**SOUTHWEST KANSAS IS DEVELOPING** fast. Farmers are making good profits on small investments. It is the best place today for the man of moderate means. You can get 160 acres for \$200 to \$300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6%—price \$10 to \$15 an acre. Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy purchase contract. Address W. T. Cliver, Santa Fe Land Improvement Company, 405 Santa Fe Bldg., Topeka, Kansas.

### FARMS WANTED.

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

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

### WISCONSIN LANDS FOR SALE.

**MR. LANDSEEKER—WRITE FOR LIST** of Central Wisconsin farm opportunities. Investigate this dairy section. Nall's Land Agency, Spencer, Wisconsin.

### Grow a Few Grapes

Every one should put out a few grape vines. The grape is a fruit that should be more generally grown. O. F. Whitney pins his faith to the two varieties, Moore's Early and the Concord. "Moore's Early I consider the best grape we can raise," says Mr. Whitney. "The Concord will grow if you give it a chance, but Moore's Early comes earlier, is a nicer grape, a sweeter grape, and grows in better bunches. You can go into ecstasies over a plate or a basket of Moore's Early. Be sure to let them ripen well and you will find no variety produces a better table grape. The grapes turn black before they are quite ripe and we are quite often disappointed because we pick the fruit green. The Worden is a good variety, but the bunches are apt to be scattering. You must prune the grape vines severely to get large fruit. I was reading today of a man who said he had never pruned his grape vines until the leaves were well started. I knew one man who saved his grapes from a late frost because he did not prune until late. If the first buds are frozen, a second crop will come; and if those are destroyed, a third."

### But It "Ain't"!

A British committee was conducting an inquiry with a view to determining how extravagance in hotels and restaurants could be checked most advantageously. When the question of margarine came to be considered, a member of the committee inquired of a witness, a matter-of-fact waiter, whether that article of food was known in the restaurant business as "margarine" or as "margarine."

"We don't call it neither, sir," the waiter replied. "We call it butter."—Exchange.

## 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.

## Preparing Household Budgets

**T**HE war has helped to teach the nation the much-needed lesson of thrift and the value of careful buying, sane saving and secure investment. We must not forget the lesson, now that the war is over. The home should be run on a sound basis. A man who managed his business in the haphazard way in which some housewives conduct the financial affairs of the home would soon have no business to manage.

To obtain the greatest value for each dollar which has cost so much in time and effort and brain and sinew is the problem of every housewife. Certain family needs—food, shelter, clothing, and the operating expenses of the home—must always be met and can be reduced to the minimum necessary for efficiency only by careful planning. In such items as education, savings, recreation and incidentals the element of choice plays a greater part. We of today believe in the larger life. We are not satisfied with the bare essentials of living. We are getting away from the philosophy of our grandfathers that we win by going without; that he is wisest who denies himself the most. This hard philosophy was necessary in order to live at all in the pioneer days when there was not enough of anything to go around. The lesson we need to learn is that of denying ourselves one thing in order that we may have another which is more desirable. If we can by forethought and wise planning reduce the amount necessary for food, clothing, and maintenance, without sacrificing the health or comfort of the family, we shall be able to add to the funds available for education, recreation, advancement, charity, health, savings, investment, or whatever may be the particular star to which we have attached our wagon. We do not all strive for the same things, but those who have learned to plan their expenditures beforehand are attaining their diverse ends more successfully than those of us who merely keep a record of family disbursements after the money has been spent. Most of us live on incomes which are more or less fixed, and the only way of stretching them to cover extra expenses is to decide beforehand just what proportion shall be eaten, worn, lived in and burned up, and what shall be set aside systematically for other purposes. "The measure of our civilization is the distance we plan ahead."

The making of a budget by those living on the capricious incomes from the soil implies the standardizing of the farm business so that a minimum average income can be depended upon, taking a number of years together. This average income must be the basis of the annual budget. There should be no unwise plunging in a good crop year and no niggardly scrimping in a lean year. Prices will vary more or less, and sometimes unexpected expenses will cause one item to expand, but, even though it cannot be strictly adhered to, the budget plan will still be of service in showing the amount of the excess and making it easier to determine the items over which a corresponding decrease can be distributed.

Perhaps no help that has been given the homes of the state by our agricultural college will prove to be of more practical value than the suggestions regarding the planning of a definite yearly budget recently sent out from the office of the state leader of county home demonstration agents. "It is suggested," says this circular, "that every man, woman and child take account of his or her personal property, savings and debts, and make plans for twelve months of getting-ahead during the next year. To 'make both ends meet' is the ardent desire of every housewife who has but a limited income at her disposal. Properly to expend the money placed in her hands is the wish of the more fortunate woman who does not feel the pinch of want so keenly. Do

as the Old Country folk who come to our generously Nature-endowed country: spend less than you make and never trust to the future to 'make up' for living beyond your income now. If you make but two dollars today, save a little, even though you may know that tomorrow will see you more prosperous."

The table submitted shows estimated expenditures for incomes of \$960, \$1200 and \$2400.

Budget for \$960 Income		
Maintenance. . . . .	30 per cent	\$288.00
Food. . . . .	35 per cent	336.00
Clothing. . . . .	10 per cent	96.00
Investment. . . . .	10 per cent	96.00
Advancement. . . . .	4 per cent	38.40
Health. . . . .	6 per cent	57.60
Recreation. . . . .	5 per cent	48.00

Budget for \$1200 Income		
Maintenance. . . . .	33 per cent	\$396.00
Food. . . . .	32 per cent	384.00
Clothing. . . . .	10 per cent	120.00
Investment. . . . .	10 per cent	120.00
Advancement. . . . .	4 per cent	48.00
Health. . . . .	5 per cent	60.00
Recreation. . . . .	6 per cent	72.00

Budget for \$2400 Income		
Maintenance. . . . .	31 per cent	\$744.00
Food. . . . .	25 per cent	600.00
Clothing. . . . .	13 per cent	312.00
Investment. . . . .	12 per cent	288.00
Advancement. . . . .	4 per cent	96.00
Health. . . . .	6 per cent	144.00
Recreation. . . . .	9 per cent	216.00

Most farm families will not pay out for food as large amounts as those indicated on the chart, because much of the food consumed is produced on the farm. Strictly speaking, however, the market value of all that is raised for home consumption should be credited to the income and charged to food. The farm business has yielded these returns, and you are simply selling them to yourself instead of to another. Some of the fuel may also come from the farm, and rent or taxes are covered in the farm investment, so that the sum actually paid out for maintenance of the farm home will be less than indicated in the table.

The seven divisions of household expense given in the table are explained as follows: MAINTENANCE includes rent; taxes; house and furniture insurance; life, accident and health insurance; expressage; telephone, stationery and postage; newspapers; fuel, ice; replenishing of house supplies; laundry supplies; renovating and recovering furniture; wages paid household help; upkeep of the home.

Food includes everything the word implies. It also accounts for meals taken outside of the home and for sweets.

CLOTHING includes all wearing apparel, materials purchased with which to make clothing, and the cost of repairing, cleaning and pressing.

INVESTMENT accounts for purchases of stocks, Liberty bonds or other bonds; money deposited in savings banks; payment on property; purchases of household furniture, where these do not merely replace wornout articles.

ADVANCEMENT is the "field of choice." It includes musical instruction, education, membership in clubs, books and magazines, church contributions, and donations to charity.

HEALTH covers prescriptions and drugs for hygienic purposes and all doctors' and nurses' bills.

RECREATION has a close relationship to health. Health is largely a matter of proper and sufficient play in addition to wholesome food and right living. Any well balanced plan of living must take into consideration the three deciding factors in happiness: love, work, and play.

If you do not feel prepared to immediately make out a definite budget, it would be well to at least begin the keeping of careful household accounts, analyzing and studying these with a view to working out such a system later. A study of your expenditures should also develop greater purchasing power. Women who care to go more deeply into this fascinating study will find the book



entitled "Increasing Home Efficiency," written by Martha Bansley Bruere and Robert W. Bruere and published by the Macmillan Company, full of helpful ideas. The experiences of numbers of families of different occupations in solving this problem are given. It also discusses the basis of efficiency for the home, or what society has a right to expect of the home and what assistance it owes to the home in return.

### The Magic Child

In the ledgers of our hearts the debit columns are frequently written full and black with our children's indebtedness to us—to us, overworked, self-sacrificing, loving, and devoted parents. The ledgers show to our eyes that we have given to our children our all; and the only returns we can see for our investment of love and devotion are rebelliousness, selfishness, disobedience, discourtesy, perhaps stupidity, items which make us feel that we have spent our all to no purpose. In our frantic depression we feel that we have failed; and we despairingly ask ourselves, why, when we have given all we had to give, should we fail?

There may be many answers, or component elements, of the full answer, to this despairing question of our hearts, but I am here going to deal chiefly with one answer. We fail because we expect too quick results, because we are too impatient for the child's development. We want immediate profits from our investment. We fail because we try to implant excellent precepts, and from them we expect immediately to spring a magically perfect child.

There are few more important rules to remember in connection with the training of children than to ignore 99 per cent of the children's mistakes; to notice only the significant points, only those of the child's bad manners or bad habits that actually spell destruction, that mean a serious injury either to the child himself, to other children, or to important property. One important point noticed at the right time and corrected in as few words as possible, the corrective statement made simply, definitely, and to the point, and if necessary repeated in exactly the same words so that there will be no doubt in the child's mind as to the meaning of those words, one point so corrected will be more fruitful of good results than the most devoted attempt to watch over all faults every day.

The only magic we can count upon to make over our children is a combination of understanding, hard work, patience, and then more patience—and a willingness to wait and keep on waiting. It is hard and slow and seemingly commonplace, but it can work miracles. And no other magic can do so much.—MIRIAM FINN SCOTT in Good Housekeeping.

### Care of Sewing Machine

Don't forget to oil the sewing machine frequently. The treadle and pitman should be oiled in their bearings almost as often as the working parts above the table.

Don't allow the machine to stand uncovered when not in use, as it collects dust and lint. The working parts below the cloth plate should be dusted and lint removed frequently with a small camel's hair brush. The parts above the cloth plate should be wiped often with cheese cloth.

Don't run the machine when the presser foot is down and there is no material in the machine, as this roughens the under side of the foot and blunts the feed.

Don't run the machine while it is threaded without a piece of material under the foot, as this causes the thread to knot around the bobbin and makes a big ugly bunch of thread on the under side of the work when stitching is begun. There is often a tendency on the part of the operator to stitch several inches after the end of the seam has been reached. This is a bad practice.

Don't pull the material while it is being stitched, as this causes a stretched, tight, ugly stitch and very often blunts or breaks the needle. The feed will take care of this unassisted and will push the material through as fast as the machine can take care of it.—BERYL DIXON, Colorado Agricultural College.

### Left-Over Soda Breads

Even though the war is ended, it is the duty of every housewife to avoid waste of food. The cost of white flour and substitutes and other ingredients of batters and doughs makes it also a mat-

ter of practical economy to use left-over breads. The following method for using all sorts of left-over batters and doughs was worked out by a woman in charge of the cooking for a club of forty girls and is given out by the department of home economics of the South Dakota State College. The head of the department assures us that the result is a delicious rye bread.

Set a sponge at night as for white bread, using two dry yeast cakes, two quarts of warm water, a little sugar and flour enough to make a good sponge and let stand over night. In the morning prepare the left-over soda breads, which were in this instance three dozen buttermilk pancakes and one loaf of steamed brown bread. Soak them in water until soft and drain in a colander to remove any cold liquid. Put the soaked breads in the bread pan and rub out smooth with a wooden spoon to prevent any bulky material from entering the bread.

Mix together one cupful of shortening, two cupfuls sugar, one cupful molasses, seven teaspoonfuls salt and two cupfuls hot water. Add this mixture to the soft bread with enough warm water to make the entire mixture warm. Stir in the sponge and beat the entire mixture thoroughly. Mix in the flour, using the proportion one-third rye flour and two-thirds white flour until the dough is the proper consistency for rye bread. Let rise and knead. After the second rising, mold into loaves and put into separate bread tins, as this makes the baking of a heavy bread more even. Bake in a moderate oven. This recipe makes twelve loaves.

Any kind of left-over soda breads could be used instead of the pancakes and brown bread. This would prevent any waste of breads, as the baking powder breads can easily be used for making dressings.

### Mrs. Lofly and I

Mrs. Lofly keeps a carriage;  
So do I.  
She has dapple grays to draw it;  
None have I.  
She's no prouder with her coachman  
Than am I.  
With my blue-eyed laughing baby  
Trundling by.  
I hide his face lest she should see  
The cherub boy and envy me.  
Her fine husband has white fingers;  
Mine has not.  
He could give his bride a palace;  
Mine a cot.  
Hers comes home beneath the starlight;  
Ne'er cares she.  
Mine comes in the purple twilight,  
Kisses me.  
And prays that He who turns life's sands  
Will hold his loved ones in His hands.

Mrs. Lofly has her jewels;  
So have I.  
She wears hers upon her bosom;  
Inside, I.  
She will leave hers at death's portals  
By and by;  
I shall bear my treasure with me  
When I die.  
For I have love, and she has gold;  
She counts her wealth; mine can't be told.  
She has those that love her station;  
None have I;  
But I've one true heart beside me;  
Glad am I.  
I'd not change it for a kingdom,  
No, not I!  
God will weigh it in His balance  
By and by.  
And then the difference 'twill define  
'Twixt Mrs. Lofly's wealth and mine.  
—Author Unknown.

### Tomato and Barley Soup

1 quart canned tomatoes  
2 quarts boiling water  
1 cupful pearl barley  
¼ teaspoonful pepper  
4 tablespoonfuls butter or other fat  
2 medium sized onions  
1½ teaspoonfuls salt  
Brown the fat, put in onions cut in small pieces and fry until tender, then add boiling water, tomatoes, barley and seasoning. Cook for two or three hours over a slow fire.—MRS. HELEN ANDERSON, Home Agent, Washington County.

### Potato Drop Cookies

1½ cupfuls hot mashed potato  
1½ cupfuls sugar  
1 cupful beef or mutton fat  
1½ cupfuls flour  
2 teaspoonfuls baking powder  
1 teaspoonful cinnamon  
½ teaspoonful cloves  
½ teaspoonful nutmeg  
½ cupful chopped raisins  
½ cupful chopped nuts  
Combine the ingredients in the order given and drop the mixture by spoonfuls on a slightly greased tin. Bake the cookies in a moderate oven.—Cornell University Bulletin.

### Using Dried Pumpkin

Dried pumpkin or squash is prepared for cooking by soaking over night in cold water to replace the water lost in drying, three parts of water by measure being used to one of the dried product. It should be cooked slowly until thoroughly soft in the water in which it was soaked. Then drain off the water, sea-

## Western Canada's "Horn of Plenty" Offers You Health & Wealth



Western Canada for years has helped to feed the world—the same responsibility of production still rests upon her. While high prices for Grain, Cattle and Sheep are sure to remain, price of land is much below its value. Land capable of yielding 20 to 45 bushels of wheat to the acre can be had on easy terms at from \$15 to \$30 per acre—good grazing land at much less. Many farms paid for from a single year's crop. Raising cattle, sheep and hogs brings equal success. The Government encourages farming and stock raising. Railway and Land Co's. offer unusual inducements to Home Seekers. Farms may be stocked by loans at moderate interest. Western Canada offers low taxation, good markets and shipping; free schools, churches and healthful climate. For particulars as to reduced railway rates, location of land, illustrated literature, etc., apply to Supt. of Immigr., Ottawa, Can., or F. H. HEWITT, 2012 Main St., Kansas City, Mo. Canadian Government Agent.

## WAR MANUAL and HISTORY FREE

Send us Just  
one new  
subscription  
for 6 months

Our War Manual and History is a ready reference chronology of events of the great war; an up-to-date, convenient booklet of great historic value.

### WHAT IT CONTAINS

1. Dates of nearly 1,000 events of the war, arranged in order for handy reference.
2. A concise review of each year of the war.
3. The complete terms of the armistice.
4. A separate article on WHAT KANSAS DID IN THE WAR.

### YOURS FOR A FAVOR

OUR OFFER: Send us one new trial subscription to Kansas Farmer for six months at 50 cents and we will send you the War Manual and History free and postpaid.

NOTICE: The subscription you send must be a bona fide NEW subscriber to Kansas Farmer.

### USE THIS COUPON

KANSAS FARMER COMPANY,  
Topeka, Kansas.

Enclosed please find 50 cents, for which send KANSAS FARMER for six months to

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

Town..... State.....

Send the War Manual and History to me at the following address:

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

Town..... State.....

son well with salt, pepper, sugar and butter, and serve, or use as ordinary pumpkin or squash in the ordinary recipes for pies. Placing squash in the oven after seasoning and baking it for half or three-fourths of an hour will make it more appetizing if it is to be served as a vegetable. In making pies an ounce of the dried product should be allowed for three pies.

### Farm Home Conveniences

There is no reason in this day and age why the farm family should not live just as comfortably as families in like circumstances in towns and villages. A simple bathroom with running water can be equipped for about three hundred dollars, which at 6 per cent, if the money were borrowed, would cost about eighteen dollars per year. The same gasoline engine which does the other farm work can pump the water into the pressure tank. Lighting systems and other

conveniences are now available for installation in the farm residence.

This subject should be thoroughly discussed at the meetings of the granges and other farm clubs. It may be that some farmers and their wives are sensitive in talking about home conditions, but if it is made a community matter it would not be long before the great majority will conclude that a heating system and running water in the house are the best possible investments.

### Her Masterpiece

"Let others write their poetry,  
And paint their pictures, too;  
Let others create music—  
I have You.

"While some are making verses  
And stories by the score,  
I play with blocks and marbles  
On the floor.

"And when the days are finished,  
According to God's plan,  
They may He smile and find complete  
My masterpiece—a Man!"  
—Helen Fairchild Mosley.



# RELIABLE POULTRY BREEDERS

## PLYMOUTH ROCKS.

**BUFF ROCK EGGS, \$1.00 SETTING; \$5.00 hundred.** Mrs. B. F. Peirce, Braymer, Mo.

**NICE BARRED ROCK COCKERELS, \$2.** J. Hammerill, Oak Hill, Kansas.

**WHITE ROCK EGGS, \$5 PER HUNDRED.** Nora Lamaster, Hallowell, Kansas.

**PURE BUFF ROCK EGGS—FIFTEEN.** \$1.50; fifty, \$3.50; hundred, \$6.50. Mrs. Geo. Mortimer, Route 4, Manhattan, Kansas.

**CHOICE BARRED ROCK COCKERELS.** Parks 200-egg strain. Eggs for hatching. Gem Poultry Farm, Haven, Kansas.

**SIMS' BARRED ROCKS—KANSAS CITY winners.** Pens mated. Write for mating list. George Sims, LeRoy, Kansas.

**PURE-BRED BARRED ROCK COCKERELS, \$3; eggs, fifteen for \$5; winter laying strain.** E. Plessinger, Cheyenne Wells, Colo.

**BEAUTIFULLY MARKED "RINGLET"** Barred Rocks. Eggs, fifteen, \$1.75; hundred, \$8. S. R. Blackwelder, Isabel, Kan.

**BARRED PLYMOUTH ROCKS—PURE-BRED selected, farm raised stock.** Eggs for hatching, 6c each. Mrs. W. C. Bocker, Solomon, Kansas.

**BARRED PLYMOUTH ROCKS—THOMPSON Ringlet strain.** Pen and utility flock eggs for hatching at live and let live prices. A. F. Siefker, Defiance, Missouri.

**BUFF AND WHITE ROCKS—WON TWO first prizes at Topeka State Show.** Eggs, \$1.50; fifteen, \$3; hundred, \$7. W. H. Beaver, St. John, Kansas.

**PARK'S 200-EGG STRAIN BARRED Rocks, perigreed bred, one setting \$2.25; 100 eggs, \$9.00; utility, one setting, \$1.75; 100 eggs, \$7.50.** R. B. Snell, Colby, Kansas.

**IF YOU WANT BARRED ROCK EGGS** from trap-nested pedigreed laying stock, send to Farnsworth, 224 Tyler Street, Topeka, for mating list. Free.

**BARRED ROCK EGGS FOR HATCHING**—Light and dark matings. Good layers. Special matings, \$5 per fifteen; range, \$6 per hundred. C. C. Lindamood, Walton, Kansas.

**BARRED ROCKS—STATE FAIR AND Chicago winners.** Eggs, \$2 per fifteen; \$3 hundred. Exhibition pens, \$5, fifteen. Guaranteed. Hiram Patten, Hutchinson, Kansas.

**GRANDVIEW WHITE ROCKS (FARM-raised).** Eggs from stock with prize winning and trap-nested ancestry, 216-278 eggs, special matings \$3.50-\$5.00 per fifteen; range, \$2.00-\$7.50 per hundred prepaid. Chas. Blackwelder, Isabel, Kansas.

**THOMPSON STRAIN BARRED PLYMOUTH Rocks—Eggs, \$8 per hundred; baby chicks, 15 cents each.** Yards all headed by pure E. B. Thompson males. Beautiful Fawn and White Indian Runner ducks, eggs fifteen for \$2. Emma Mueller, Route 2, Box 15, Humboldt, Kansas.

**WHITE PLYMOUTH ROCKS, NO BETTER anywhere.** Have bred them exclusively for 26 years and are extra good layers. Eggs, \$3 per fifteen, from five pens; \$5 per fifteen from first pen. Expressage or parcels post prepaid. Thomas Owen, Route 7, Topeka, Kansas.

## SEVERAL BREEDS

**EGG CATALOG FREE—WYANDOTTES, Brahmas, Reds.** Six kinds of ducks. Fred Kucera, Clarkson, Nebraska.

**GESE AND BANTAMS—STOCK AND eggs for sale.** Two White Rock cockerels, one White Wyandotte. Emma Ahlstedt, Lindsborg, Kansas.

**GAME BIRDS, ETC.—BEAUTIFUL RING-neck pheasants, pair, \$7.** Wild strain mallards, pair, \$3.75. Silkies, Buff Cochins bantam cockerels, \$1.50. Book, "Pheasant Breeding," 130 pages, 50c. "Ringlet" Barred Rock eggs, forty, \$4. "Ringlet" cockerels, \$5. Mrs. Iver Christenson, Kt, Jamestown, Kansas.

## DUCKS AND GESE.

**BUFF DUCK EGGS—THE EGGS ARE white; the ducklings easily raised and profitable.** Mrs. E. S. Groves, Raytown, Mo.

## ANCONAS.

**S. C. ANCONAS—SHEPPARD, MADISON winner strain.** Eggs, fifteen, \$3; 100, \$10. Chicks, 25c. Lottie DeForest, Peabody, Kan.

**ANCONA EGGS FOR HATCHING—BEST winter laying strain.** \$1.50 and \$2 per fifteen, \$3 per hundred, prepaid. Guy Sheehan, Coffeyville, Kansas.

**FOURTEEN ANCONA HENS LAID 24 dozen eggs in one month for me.** Send \$2.50 for two settings. Seven settings, \$6. Joe Patsch, Route 3, Humphrey, Neb.

## HENS WANTED

Will pay 28c per pound for fat hens delivered before April 5, 1919. Eggs and other poultry at market price. Coops loaned free.

## "THE COPES"

Topeka

Established 1883.

Bank References Furnished.

Please Mention Kansas Farmer When Writing to Advertisers.

## LEGHORNS.

**L. B. RICKETTS, BREEDER OF EXHIBITION and utility Single Comb White Leghorns.** Greensburg, Kansas.

**SINGLE COMB BROWN LEGHORNS—Winners at the big shows.** Eggs, \$6.50 per hundred. Wm. Roof, Maize, Kansas.

**S. C. BROWN LEGHORN EGGS—FINE matings.** Setting, \$1.50; fifty eggs, \$3.50. Mrs. L. H. Hastings, Thayer, Kansas.

**TOM BARRON ENGLISH WHITE LEGHORNS from imported stock.** Eggs, fifteen, \$3; 100, \$10. Lottie DeForest, Peabody, Kan.

**ROSE COMB BROWN LEGHORNS—State winners.** Roosters, \$5c; eggs, 5½c. Rufus Standiford, Reading, Kansas.

**THOROUGHbred CHOICE SINGLE Comb White Leghorn cockerels, \$2 each.** J. C. Powell, Nelson, Nebraska.

**S. C. BROWN LEGHORNS, BRED 23 years; 222 to 266 egg lines.** Eggs, fifteen, \$2; thirty, \$3; fifty, \$4; hundred, \$7. Gorsuch, Stillwell, Kansas.

**EGGS—S. C. W. LEGHORNS, \$7. CHICKS, 20c.** Famous Young strain, costing \$20 setting. Elsie Thompson, Mankato, Kansas.

**FOR SALE—S. C. B. LEGHORN COCKERELS, \$1.25 each; five or more, \$1.00 each.** Cornelius Phillips, Route 9, Emporia, Kan.

**ROSE SINGLE COMB BROWN LEGHORNS, bred for eggs and exhibition qualities.** Eggs, \$7 per hundred; 150, \$10. Prepaid. Plainview Poultry Farm, Lebo, Kan.

**BUFF LEGHORN EGGS FROM CHOICE pure-bred heavy layers, \$6 hundred; \$6.50, parcels post prepaid.** Mrs. J. L. Dignan, Kelly, Kansas.

**FOR SALE—SINGLE COMB WHITE Leghorn eggs from extra good laying strain, \$6 per hundred.** I. H. Gnagy, Hutchinson, Kansas.

**ROSE COMB BROWN LEGHORN EGGS for hatching.** Range stock. Extra layers. Fourteen years' breeding. \$7.00 per hundred. Blue Grass Stock Farm, Onelda, Kan.

**S. C. W. LEGHORN EGGS FROM Young's strain, hens mated to Baron and Hillview cockerels.** \$6.00 hundred, \$1.50 fifteen. Mrs. Ethel Miller, Langdon, Kan.

**SINGLE COMB BUFF LEGHORN EGGS, \$6.00 per hundred, \$3.50 per fifty.** Satisfaction guaranteed. Alf Johnson, Leonardville, Kansas.

**QUALITY SINGLE COMB WHITE LEGHORNS—Eggs, \$1.25 per fifteen, \$6 per hundred.** Satisfaction guaranteed. Dave Baker, Conway Springs, Kansas.

**FOR SALE—LAYING UTILITY SINGLE Comb White Leghorn hens.** Hatching eggs, pure-bred cockerels, \$2 each. Katie Skeiley, Delia, Kansas.

**BUFF BOOK FREE. ORDER EGGS now.** 120, \$10; 50, \$5; 15, \$2. Pens, trap-nested, settings, \$3, \$5. Postpaid. Haines Buff Leghorn Farm, Rosalia, Kansas.

**CAREFULLY SELECTED RANGE-RAISED pure-bred Rose Comb Brown Leghorns—Eggs for hatching, fifty, \$3; 100, \$5.** Infertile eggs replaced. Mrs. R. L. Rossiter, Hollis, Kansas.

**SINGLE COMB WHITE LEGHORN EGGS for hatching.** Only choice hens mated to pure white Tom Barron cockerels, \$7 per hundred, \$2 per fifteen. High fertility guaranteed. Harry Givens, Manhattan, Kan.

**YOUNG, FRANTZ, FERRIS, YESTER-laid S. C. White Leghorn eggs from show winners and heavy laying stock.** Free range, \$6 per hundred. Satisfaction guaranteed. L. O. Wemeyer, Route 1, Anthony, Kansas.

**PEDIGREED WHITE LEGHORN COCKERELS from heavy egg producing Kansas State Agricultural College stock.** Vigorous range-raised birds. Eggs for setting. Price reasonable. C. C. Blood, Gridley, Kansas.

**PURE SINGLE COMB BROWN LEGHORNS, Tormohlen strain.** Winter layers. No better farm flock. Eggs, range, 100, \$7; pen, fifteen, \$3, postpaid. Mrs. D. A. Wohler, Hillsboro, Kansas.

**SUNNYSIDE EGG FARM—BARRON SINGLE Comb White Leghorn eggs, \$1.50 fifteen, \$8 hundred.** Fertile eggs guaranteed. Choice cockerels. Sunnyside Egg Farm, Box F, Hallowell, Kansas.

**PURE-BRED SINGLE COMB WHITE Leghorns.** Pure white, low-tailed males mated to heavy laying females. Active, beautiful, profitable. Eggs, \$6 per hundred; setting, \$1.50. Order now. E. D. Allen, Inland, Nebraska.

**S. C. BROWN LEGHORNS—BEAUTY and utility.** Fourteen first prizes and two sweepstakes in state fairs in two years. Baby chicks, \$15 per hundred. Exhibition birds, \$5 per set. Order now. Mrs. C. Boudoux, Carona, Kansas, Paradise Poultry Farm.

**SINGLE COMB WHITE LEGHORNS from the famous Yesterday strain of laying Leghorns mated with Ferris 260-egg trap-nested stock.** Selected eggs, parcels post, \$7 hundred. Ten extra with each hundred order. Shady Pine Leghorn Farm, Morris Bond, Prop., Rossville, Kansas.

**EGGS FROM HEAVY WINTER LAYING S. C. W. Leghorns, bred for winter laying for years.** Won third and fourth pen for monthly record, second pen for monthly record, and fourth pen for yearly record, at American egg-laying contest at Leavenworth, Kansas. Write for prices. H. M. Blaine, Sylvia, Kansas.

## BABY CHICKS.

**LEADING VARIETIES, 20c DELIVERED.** Request folder. McCune Hatchery, Ottawa, Kansas.

**BABY CHICKS—S. C. W. LEGHORNS, winter layers.** Order from us. We have the best. Any quantity. Bellevue Poultry Farm, Route 1, Scammon, Kansas.

## RHODE ISLAND REDS.

**S. C. REDS—EGGS, \$2.50.** MRS. JOHN Linn, Manhattan, Kansas.

**SINGLE COMB RED COCKERELS, GOOD color and shape, \$3 to \$5 each.** E. J. Manderscheid, Seward, Kansas.

**PURE-BRED R. C. R. I. RED EGGS FOR hatching, \$1 per fifteen, \$5 per hundred.** L. F. Hinson, Stockdale, Kansas.

**SINGLE COMB RED COCKERELS, \$5 TO \$10.** Eggs. Maple Hill Poultry Farm, Lawrence, Kansas.

**CHOICE ROSE COMB RED COCKERELS, \$2.** Order soon. Chicks, 15c. Lily Robb, Neal, Kansas.

**ROSE COMB RHODE ISLAND REDS—Good color and good layers.** Range flock only. Eggs, \$1 per fifteen, \$5 per hundred. V. G. Eberhardt, Glasco, Kansas.

**FOR SALE—ROSE COMB RHODE ISLAND REDS, good bone, dark red, good layers and setters.** Eggs, \$1.50 fifteen, \$6 hundred. Mrs. Geo. Schultz, Trousdale, Kansas.

**HIGH CLASS SINGLE COMB REDS—Get my price on hatching eggs, three pens, 225-egg strain.** Nels W. Peterson, Mason City, Nebraska.

**REALLY RED S. C. RED EGGS, EXHIBITION matings, fifteen, \$5; farm flock, fifteen, \$1.50; hundred, \$7.00.** Mrs. May Felton, Blue Mound, Kansas.

**ROSE COMB R. I. RED COCKERELS, \$3, \$5, from laying strain; large bone and dark red.** Eggs, \$3. Mrs. W. H. Smith, Alden, Kansas.

**SINGLE COMB RED COCKERELS, LAYING strain, two to five dollars.** Guaranteed. Eggs, one-fifty fifteen, seven dollars hundred. Mrs. Geo. Long, St. John, Kansas.

**EGGS FROM ROSE COMB RHODE ISLAND REDS.** They are large boned, dark red and good layers. \$1 per fifteen, \$6 hundred. Mrs. Sam Putnam, Route 4, El Dorado, Kan.

**HARRISON'S FAMOUS NON-SETTING Single Comb Rhode Island Red (developed egg strain).** Get bulletins and list. Robert Harrison ("The Redman"), Lincoln, Neb.

**SINGLE COMB RED EGGS FROM sweepstakes pen and other state show winners, \$2, \$3, \$5, \$10 setting.** Order from this ad. W. G. Lewis, 622 N. Market, Wichita, Kansas.

**DISPERSION SALE, ROSE COMB REDS.** Cause, death of Mrs. Huston. Mated pens, hens, cockerels, cocks, sired by roosters costing \$50 to \$75. Sacrifice prices. W. R. Huston, Americus, Kansas.

**MACK'S SINGLE COMB REDS WILL lay and win for you.** Extra fine in size, type and color. Get my 1919 mating list. We pay all express charges on egg shipments. H. H. McLellan, Route 6, Kearney, Nebraska.

**R. C. RED EGGS FROM FLOCK MATED to males sired by \$50 and \$75 cockerels, \$7 per hundred; \$4 per fifty; \$1.50 per fifteen.** Write for circular. Mrs. E. F. Lant, Dennis, Kansas.

**PURE-BRED ROSE COMB REDS—Three extra good pens direct from Meyer's famous trap-nested strain.** Fifteen eggs, \$1.25, \$2.00, \$2.50; thirty eggs, \$2.00, \$2.50, \$3.50. Fertility guaranteed. M. L. Van Ornam, Superior, Nebraska.

**HATCHING EGGS—S. C. R. I. REDS OF the famous C. P. Scott's strain direct.** Winners at the World's Fair and 200-egg strain at the American Egg Laying Contest at Leavenworth, Kansas. Flock range as they run, \$2.50 per fifteen eggs, \$6 per fifty, \$10 per hundred. Address Mrs. M. W. Scott, Proprietor Edgewood Farm, Route 5, Topeka, Kansas.

## BRAHMAS.

**EGGS FROM PURE-BRED LIGHT Brahmas.** Setting of fifteen, \$1.25; 100 for \$7. Albert Reetz, Tobias, Nebraska.

**LIGHT BRAHMA EGGS, \$2.50 AND \$3.50 per fifteen eggs; \$4 and \$6 per thirty eggs.** Geo. W. Craig, 2031 Wellington Place, Wichita, Kansas.

**MAMMOTH LIGHT BRAHMA EGGS—Exhibition mating, \$3 per fifteen; farm flock containing no culls, 100, \$7.00; thirty, \$3.00.** Mrs. Oscar Felton, Blue Mound, Kansas.

## MINORCAS.

**S. C. BLACK MINORCAS—EXTRA FINE winter layers.** Eggs, \$1.75 and \$2.50 per fifteen, \$4, fifty; \$7.50 hundred. Mrs. H. M. Tilton, Anadarko, Oklahoma.

**S. C. BLACK MINORCA EGGS FOR SETTING.** Extra layers. Eggs from pen birds, \$2 per fifteen eggs. Mrs. E. G. Tharp, Protection, Kansas.

## LANGSHANS.

**BLACK LANGSHAN EGGS, 100; CHICKS, 20c.** Mrs. G. W. King, Solomon, Kansas.

**BLACK LANGSHANS—EGGS, FIFTEEN, \$1.50; hundred, \$6.00; one-fifth more by mail.** Baby chicks, 10c each. Mrs. J. B. Stein, Smith Center, Kansas.

**PRIZE STOCK—BIG 13, 14-LB. BLACK Langshans.** Pen headed by \$75 cockerel, 261-egg strain; fifteen eggs, \$5. Second pen, fifteen, \$2.50; hundred, \$10. E. Stewart, Henderson, Iowa.

## TURKEYS.

**NARRAGANSETT TURKEYS, STOCK and eggs for sale.** Mrs. John Mitchell, La-fountain, Kansas.

**EGGS FROM BOURBON RED TURKEY 42-pound tom two-year-old hen 16 to 20 pounds.** Prepaid. Fertility and safe arrival guaranteed. S. Peltier, Concordia, Kansas.

## WYANDOTTES.

**SILVER WYANDOTE EGGS—FIFTEEN \$1.75; fifty, \$4; hundred, \$7.** Mrs. Edw. Shuff, Plevna, Kansas.

**PURE-BRED WHITE WYANDOTE eggs, fifteen, \$1.25; hundred, \$6.** Edw. Acheson, Palco, Kansas.

**WHITE WYANDOTE EGGS—FIFTEEN \$1.50; hundred, \$5.75.** Stephenson Bros. Cawker City, Kansas.

**WHITE WYANDOTTES—BIRDS DIRECT from John S. Martin.** Eggs, \$2.50 and \$5.00 per fifteen. L. A. Moore, Hawatha, Kan.

**WHITE WYANDOTE EGGS FROM MY famous show and laying strain, \$3.50 for forty-eight, prepaid; \$7 hundred.** S. Peltier, Concordia, Kansas.

**EGGS—WHITE WYANDOTTES, KEELER strain.** Utility, \$1.50 fifteen, \$4 fifty, \$10 hundred. Pen extra good, \$3 fifteen. Mrs. M. M. Weaver, Newton, Kansas.

**QUALITY ROSE COMB WHITE WYANDOTTES, great winter laying strain.** Eggs, fifteen, \$1.75; thirty, \$3; fifty, \$4.50; hundred, \$8. Satisfaction, safe arrival guaranteed. Garland Johnson, Mound City, Kan.

**WHITE WYANDOTTES—THE WORLD'S greatest laying strain.** Eggs, fifteen, \$1.00, \$9, prepaid. Farm raised. Female mated with males from trap-nested hen with annual records of 227 to 272 eggs. H. A. Dressler, Lebo, Kansas.

## ORPINGTONS.

**EGGS FOR HATCHING FROM PEN OF pure-bred S. C. Buff Orpingtons, \$2.50 per fifteen.** W. Knop, Preston, Kansas.

**PURE-BRED CRYSTAL WHITE SINGLE Comb White Orpington eggs for sale.** Mrs. T. A. Buckles, Clyde, Kansas.

**SINGLE COMB BUFF ORPINGTONS, Martz strain.** Eggs, \$1.50 fifteen, \$6 sixty, \$7 hundred. Mrs. Olive Carter, Mankato, Kansas.

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

**SINGLE COMB WHITE ORPINGTONS—Blue ribbon winners, \$3 and \$5 for fifteen eggs.** Few choice cockerels and pullets. H. M. Goodrich, 712 Topeka Ave., Topeka, Kan.

**BUFF ORPINGTON EGGS—\$1.50, fifteen; \$6, 100.** Toulouse geese eggs, 30c each. Ganders, \$4.50. No geese. Mrs. Frank Ned, Beverly, Kansas.

**THOROUGHbred ROSE COMB BUFF Orpington eggs, fifteen, \$1.50; fifty, \$3.50; hundred, \$6.** Best winter layers. Frank Renzenberger, Greeley, Kansas.

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

**EGGS—SINGLE COMB WHITE ORPINGTON.** High class eggs for hatching; heavy laying strain; \$1.75 per setting of fifteen, \$5 per fifty, \$8 per hundred. Helton & Lauridsen, Callaway, Nebraska.

**SINGLE COMB BUFF ORPINGTONS, exclusively.** Cockerels scoring 93-94 points standard bred. Eggs from pen, \$3 per fifteen; range, \$5 per hundred. Warner strains. Mrs. Charles Brown, Parkerville, Kansas.

## BANTAMS.

**PURE BUFF COCHIN BANTAMS—COCKERELS, \$1.50 and \$2.00; eggs, \$1.00 for ten.** Wilbur Scott, Atlanta, Kansas.

## Heavy Feeding Kills Chicks

Proper warmth and proper feeding are the two main essentials in the early life of the baby chick. Baby chick temperature should be from 102 to 105 degrees. When brooded by hens the chicks remain under their mothers for a day or two. When a brooder is used much care is required in order that the chicks may have an even proper temperature, like that the body of the mother will provide. Young chicks should not be fed for from twenty-four to thirty-six hours after hatching. More chicks die as the result of overfeeding the first week or two than from any other one cause. It is advisable to feed five times a day, alternating a mash of soft feed, such as johnnycake, with a hard grain or scratch feed. Ventilation, fresh water, and charcoal and grit, are also essential to good baby chick health. Keep them scratching for their feed.

The first requirement of young chicks is warmth—a temperature comfortable for them. Chicks hatch in a temperature of 102 to 105 degrees F. When shipped in small boxes they are kept warm by the heat of their bodies so long as the boxes are not exposed to near freezing temperatures, but this natural heat is not sufficient when they are given more liberty.

Any tender green stuff may be fed to baby chicks. When a regular supply in quantity is needed, it is usually most convenient to use sprouted oats.



# HELPFUL POULTRY HINTS

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

## The High Producing Flock

**Y**OU should have a laying strain of one of the leading breeds of chickens. It is then an easy matter to buy eggs or birds with which to improve the flock. No one breed has a monopoly on egg laying, but the breeds that have been undergoing improvement the longest are the best ones on which to depend.

The quickest way for immediate results is to buy a lot of pullets. Pullets, however, are not as good breeders as hens. The eggs of the latter are larger and the chicks hatched from them are larger and more vigorous than those hatched from pullet eggs. Pullets are sometimes hard to buy, but hens can usually be bought during the summer and early fall when poultrymen are making room for their pullets. Males should be bought from a better flock, due allowance being made for color, shape, etc. The laying type is now considered to be the hen with long, rectangular body. The back should be long, not short enough to give a bunched appearance to the hen. If possible see new stock before buying. If you must send away, learn whether the breeder is reliable, if possible. Sometimes it is best to have a shipment come C. O. D. Better buy of those who have only one breed. Those who handle fifty-seven varieties are usually hucksters; i. e., they buy and sell and often are none too scrupulous in their advertising. They send some good birds and many that are inferior.

Keep the best of the hens bought for the second year's breeding and buy eggs or new and better blood for males the third season to mate with the first hatch of pullets, which would then be hens. The first set of males could be mated with the same hens the second season by keeping them penned during the breeding season. There are two very important reasons why the breeding flock should be penned. Fewer and better males can be used, thus improvement will be comparatively easy. Also the eggs of the remainder of the flock will not be fertilized and therefore they will be much improved in quality.

Always in buying new blood for the flock keep your ideal in view and work toward it. Vigor is next in importance. Use only vigorous males and females. This is the ounce of prevention that will save a pound of cure. Better use a vigorous good-sized male from a 200-egg hen than a perfect comb, fine-boned, light-weight male of uncertain vigor though he be from a 250-egg hen.

—F. B. UHL.

### Poultry Club Project

Here are some of the different projects open to boys and girls who join poultry clubs such as are being organized and conducted under the direction of State Poultry Club Leader Ernest H. Wiegand:

#### Poultry-Raising Project

Each member sets two settings of eggs from some standard breed of chickens, turkeys, ducks, geese or guinea fowl, and raises to maturity at least six females and one male.

#### Home-Flock Project

Each member cares for and improves the home flock according to specific directions. Directions will be sent each member after organization is complete.

Co-operation of the parents is especially desirable in this project.

#### Pen Project

Each member keeps specified records on a pen of standard-bred birds consisting of six females and one male.

A club member may take more than one of these projects if he so desires.

Every club member will be responsible for the following, regardless of the project he undertakes:

New coops or poultry houses must be built, or old ones remodeled, according to specific instructions.

Some specified ration of feeding must be adopted and adhered to throughout the club year.

Monthly reports are to be made on blanks provided by the county agent, home demonstration agent, or county club leader.

A demonstration on some phase of poultry work will be required in order to select a demonstration team from each club.

A bird or birds must be exhibited at the state, county, school, or club fair, in a coop of specified construction.

Summary of the year's work must be in the hands of the designated county leader by October 15 with the last month's report.

You could do no more commendable thing than to encourage and back to the limit the poultry club work for your own boys and girls and the boys and girls of the whole community. Earnest and faithful local leaders are essential to the success of the poultry clubs. Why not get into the game and offer your

assistance to Mr. Wiegand, the state leader, who may be addressed at the agricultural college at Manhattan.

### Feed Little and Often

Young chicks should not be fed for from twenty-four to thirty-six hours after hatching, and will not suffer if given no feed until the third day. The yolk of the egg, which is absorbed by the chick, furnishes all the nourishment required during this time. It is this provision of Nature for the first sustenance of the chick that makes it possible to ship newly hatched chicks considerable distances.

At the start it is advisable to feed five times a day, dividing the day into equal periods, and alternating a mash or soft feed, such as johnnycake, with a hard grain or scratch feed.

Unless the premises where chicks are kept and all appliances used are known to be absolutely free from lice and mites, and it is certain that chicks have never been exposed to them, it is a wise precaution to paint or spray the brooder with a mixture of four parts crude petroleum and one part kerosene, allowing it to dry thoroughly before using. Puffs of insect powder on the chicks when in the brooder, about once a week, will destroy any lice that may be on them.

The cleanings from the poultry house are valuable as a garden fertilizer, and these should be saved in barrels or some other receptacle where they can be kept reasonably dry until they are spread upon the garden. This class of fertilizer is very rich and liable to burn the plants if applied in too great quantities or in direct contact with the roots of the plants.

### Cause of White Diarrhea

White diarrhea is caused by the bacillus *Bacterium Pullorum* with which chicks are often infected when hatched. The germs multiply very rapidly and one infected chick may infect the entire brood. Prevention is the best method of combating the disease and should begin as soon as chicks are hatched. Intestinal antiseptics should be given to kill the germ. Mercuric chloride is one of the most powerful remedies, but, being a rank poison, its use is not to be recommended as long as there are safe, harmless remedies on the market that will do the work.

### How to Prevent White Diarrhea

Dear Sir: Last spring my first incubator chicks when but a few days old began to die by the dozens with white diarrhea. I tried different remedies and was about discouraged. Finally, I sent 50c to the Walker Remedy Co., Dept. 273, Waterloo, Iowa, for a box of their Walko White Diarrhea Remedy. It's just the only thing for this terrible disease. We never lost a single chick after the first dose. We raised 700 thrifty, healthy chicks, where before we never raised more than 100 a year. I'd be glad indeed to have others know of this wonderful remedy.—ETHEL RHOADES, Shenandoah, Iowa.

### Don't Wait

Don't wait until white diarrhea gets half or two-thirds your chicks. Don't let it get started. Be prepared. Write today. Let us prove to you that Walko will prevent white diarrhea. Send for 50c box on our guarantee—your money back if not satisfied. Walker Remedy Co., Dept. 273, Waterloo, Iowa.

## HOME MADE BROODERS

With Warm Medicated Dirt Floors. Saves Baby Chicks. You can change any old brooder or make one of these from an ordinary box. We will send you this information absolutely free. Also tell you

### WHY CHICKS DIE IN THE SHELL

The Book is Free—Just Send Your Name on a Post Card RAISALL REMEDY CO., BLACKWELL, OKLA.

# PLANT THIS HOME APPLE ORCHARD



and in just a short time—a very few years—you'll have apples by the barrel from your own Home Orchard. And the trees will add to the value of your home. You can plant them in your yard, or in a row along the fence or road, or in the chicken run, where the growing trees will provide shade for the flock. Accept our offer and order your trees NOW!

## WE'LL SEND TWELVE GRAFTED APPLE TREES, POSTPAID

Each little tree is produced by grafting together a "scion" (branch) from a selected tree of heavy-cropping record, to a healthy one-year root. Each little tree is about a foot high. They take root at once, make rapid growth, and bear large crops of choice apples even sooner than larger trees planted at the same time.

### TWO EACH OF THE SIX MOST POPULAR VARIETIES

**Two Genuine Delicious** The finest and most beautiful apple grown. Very large, inverted pear-shape. Color dark red, shading to golden yellow toward the tip. A fine keeper, sweet and juicy. The tree is strong, hardy and productive.

**Two Yellow Transparent** A very early and an abundant bearer. Often bears some apples the first year, even in the nursery row. A summer apple. Flavor acid and very good. Skin clear white, turning to pale yellow.

**Two Jonathan** A general favorite, and always in good demand at fancy prices. Of medium size, roundish; skin nearly covered with dark red. Fine-grained, tender, and of exquisite flavor. Tree slender and spreading.

**Two Stayman Winesap** Deep, rich red in color. It is a marked improvement over the old Winesap, in both quality and appearance. Flavor rich sub-acid. The tree is a thrifty grower and an abundant bearer.

**Two Wealthy** A native of Minnesota, where it has proved hardy, vigorous and productive. The fruit is of medium size, red, streaked with white. Excellent quality and flavor. One of the best and most productive apples grown.

**Two Winter Banana** A fine, vigorous grower, with large healthy foliage. A very early bearer of large, beautiful apples, golden yellow, with a red blush. The flesh is rich, aromatic, and of the highest quality. A good keeper.

Take advantage NOW of our offer, and in a short time you will have a fine Home Orchard.



## OUR GRAFTED APPLE TREE OFFERS

**OFFER NO. 1:** One set of these 12 Grafted Apple Trees will be sent you postpaid with a one-year subscription to Kansas Farmer for only \$1.35.

**OFFER NO. 2:** Two sets of these trees (24 trees, four of each variety), will be sent you postpaid for two yearly subscriptions to Kansas Farmer at \$1.00 each, provided one of the subscriptions is a new one. On this offer one of the subscriptions may be your own, but one must be a new subscription.

## BEATS THE HEN

The new-born chick is too weak to be able to procure and get its own feed. Old Mother Hen is a poor rustler, but that's no excuse for losing 62 out of every 100 of her own or foster chicks before they reach full feather.

### OTTO WEISS CHICK FEED

It beats all others. Beats the hen. It saves the little ones—practically all of them. Contains wheat, oats, beef meal, and enough "Crysan" to provide plenty of grit for the baby chicks. Get it of your dealer.





## AUCTIONEERS.

**FRANK BLAKE** Live Stock Auctioneer  
I make sales anywhere  
Write for date. VALLEY FALLS, KANSAS

**W. B. CARPENTER** Live Stock  
Auctioneer  
President Missouri Auction School  
118 Walnut St. Kansas City, Missouri

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

## SHORTHORN CATTLE.

## WHY NOT TRY IT?



Any farmer who raises grades would realize larger profits if he raised pure-bred Shorthorns. They don't require any more room, nor any more feed, nor any better care than the grades should have. They sell for more money. A Kansas farmer produced 94 head from one registered Shorthorn cow in 12 years. Two brothers in Wisconsin produced 119 head from one in 14 years. The value counts up when you're breeding pure-breds.

**AMERICAN SHORTHORN BREEDERS' ASS'N.**  
13 Dexter Park Avenue Chicago, Illinois

SHORTHORNS  
With Quality

For Sale—Three Scotch herd bulls, royally bred and individually extra good, representing the Brawith Bud Emerald and Orange Blossom families. Also ten head of Scotch topped females bred and regular producers. All good colors, weight from 1,250 to 1,600 pounds. Come and see me.

**H. H. Holmes, Topeka, Kansas**  
Route 25

## SHORTHORN BULLS

For Sale—Ten bulls, seven to fifteen months old; Scotch and Scotch topped. Two Scotch bulls by Type's Goods, one a Brawith Bud, the other a Duchess of Gloster. All in good condition and priced reasonably.

**S. B. AMCOATS, CLAY CENTER, KANSAS**  
Write Me Your Wants

**Shorthorn Bulls & Duroc Gilts**  
Service bulls at \$125 and up to \$200. Come and see them or write me your wants.

**KLONDYKE VALLEY FARM**  
**F. C. Houghton, Dunlap, Kansas**

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

**M. F. MARKS, VALLEY FALLS, KANSAS**

## MULEFOOT HOGS.

**KNOX KNOLL MULEFOOTS**  
Orders now booked for February litters. Catalog and prices on request.

**S. M. KNOX, HUMBOLDT, KANSAS**

## HAMPSHIRE HOGS

Registered Hampshire Hogs—Sows and Spring Gilts, bred or open. Choice spring boars. Double treated. Geo. W. Els, Valley Falls, Kansas

## HEREFORD CATTLE.

## Hereford Cows For Sale

A Few Choice Registered Hereford Cows, some with calves at foot, bred to double-standard Polled Hereford bull; also my Polled herd bull.

**F. A. DREVETS, SMOLAN, KANSAS**

## DUROC JERSEYS.

## FOR SALE

20 Duroc Jersey  
Bred Gilts

Bred for last of March and April farrow. Priced, \$60. First check gets choice. Satisfaction guaranteed or money back.

**WOODDELL & DANNER**  
Winfield - - - Kansas

## Duroc Bred Sows and Gilts

For Sale—Several well bred sows and bred gilts bred for early March and April litters, priced to sell. Also a few spring boars. First check or draft gets choice. Sold on an absolute guarantee or money back.

**JOHN A. REED & SONS, LYONS, KANSAS**

## HIGHVIEW DUROCS

Home of Repeater by Joe Orion King and Golden Repeater by Pathfinder. For sale—spring boars and a few bred gilts. I guarantee satisfaction or your money back.

**F. J. MOSER, SABBETHA, KANSAS**

**R. H. DIX & SON'S DUROCS**  
For Sale—One choice spring boar, a real herd header. Twelve spring gilts bred to Giant Crimson by G. M.'s Crimson Wonder, a prize winning boar. Priced reasonable for quick sale. Write today.

**R. H. DIX & SON, HERINGTON, KANSAS**

## POLAND CHINAS

Deming Ranch Poland Chinas.  
Big-Type Poland China Hogs

For Sale—Thirty large spring gilts bred for April and May farrow. Write or come and see our herd.

**Deming Ranch, Oswego, Kan.**  
(H. O. Sheldon, Herd Manager)

**JOHNSON'S BIG-TYPE POLAND CHINAS**  
Herd boar Over There No. 95555, the greatest son of Caldwell's Big Bob. A few bred sow and gilts for sale. Bred sow sale March 8.

**V. O. JOHNSON, AULNE, KANSAS**

## Oak Grove Stock Farm Polands

The blue ribbon herd of Spotted Polands. Fall pigs sired by O and O 25th, are immuned, recorded and the very best of breeding. Also choice Barred Rock cockerels, \$3 and \$5 each.

**B. W. SONNENMOSER, WESTON, MO.**

## LANGFORD'S SPOTTED POLANDS

Bred gilts, tried sows, herd boar prospects. **T. T. Langford & Sons, Jamesport, Missouri**

## ERHART'S POLAND CHINAS

Have a few bred sows and bred gilts priced reasonable. All immuned. Several fall boars ready for service. Write your wants.

**A. J. ERHART & SONS**  
NESS CITY, KANSAS

**CHOICE LOT OF POLAND CHINA BRED SOWS AND GILTS FOR SALE.**  
A Few Fall Pigs.

**CHAS. E. GREENE**  
Townview Farm Peabody, Kansas

## SHROPSHIRE SHEEP



## FOR SALE

A bunch of registered Shropshire rams, ready for service. Priced worth the money. Also registered ewes.

**Howard Chandler, Charlton, Ia.**

## HORSES AND MULES.



## JACKS AND JENNETS

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

**PHIL WALKER**  
Moline, Elk County, Kansas

## Percheron Stallion For Sale

L. A. Pershing No. 139914, extra good. Black, white star, coming three years old, recorded in Percheron Society of America. Priced reasonable for quick sale.

**LLOYD T. BANKS, Independence, Kansas.**

## PERCHERON STALLIONS

Some good young stallions sired by Algare and Bosquet, two great herd sires. These young stallions are very promising and priced to sell.

**D. A. HARRIS, GREAT BEND, KANSAS**



## PERCHERON-BELGIAN SHIRES

Registered mares heavy in foal; weanling and yearling fillies. Ten mature stallions, also colts. Grown ourselves the ancestors for five generations on dam side; sires imported.

**Fred Chandler, Rt. 7, Charlton, Iowa**

## JACKS AND JENNETS

Registered Jacks and Jennets. Good individuals, good colors. Have some choice young Jacks that are priced to sell quick.

**GEO. S. APP, ARCHIE, MISSOURI**

## PERCHERON STALLIONS AND JACKS



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

**J. C. PARKS, HAMILTON, KANSAS**

## Kentucky Jacks at Private Sale

E. P. Maggard, with the firm of Saunders & Maggard, Flemingsburg, Ky., has shipped 21 head of Jacks to Newton, Kansas, and they will be for sale privately at Johnson's Barn. This is a well bred load of Jacks, and they range in age



from coming three to matured aged Jacks; height from 14 to 16 hands. We will make prices reasonable. Any one wanting a good Jack will do well to call and see them. Barn two blocks from Santa Fe depot, one block from Interurban. Come and see me.

**SAUNDERS & MAGGARD, Newton, Kansas**

## HOLSTEIN CATTLE.

## CHOICE HOLSTEIN COWS FOR SALE

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

**HOPE HOLSTEIN FARMS**

**HOPE, KANSAS**

## ANGUS CATTLE

## Dietrich's Aberdeen-Angus

Aged bulls, fifteen choice spring bulls. Females, all ages.

**GEO. A. DIETRICH, CARBONDALE, KAN.**

## Cherryvale Angus Farm

Is offering six choice Angus bulls ranging in age from 9 to 11 months. All sired by Roland L. No. 187220.

**J. W. TAYLOR, Clay Center, Kansas**

## ANGUS BULLS

For Sale—Seven head bulls from 7 months to 3-year-old herd bulls. Priced to sell. Write your wants or come and see my herd. I mean business.

**FRANK OLIVIER, JR., Danville, Kansas**

## GUERNSEY CATTLE.

## GUERNSEY BULLS

Good individuals of serviceable age, of May Royal, May Rose, Masher Sequel, Raymond of the Free breeding. Write or come and see them. They are priced to move.

**ADAMS FARM, GASHLAND, MISSOURI**  
Twelve miles from Kansas City.

## AYRSHIRE CATTLE.

**MARGINALIA'S BULL IS SOLD TO G. M. FICHELLE, LEON, KANSAS.**

Write for breeding of Aca 3d's calf by Elizabeth's Good Gift, at \$150.

**JOHN LINN & SON, MANHATTAN, KAN.**

## BREEDERS' DIRECTORY

**DORSET HORN SHEEP**  
**H. C. LaTourette, Route 2, Oberlin, Kan.**

**HEREFORD CATTLE**  
**F. S. Jackson, Topeka, Kan.**

**RED POLLED CATTLE**  
**Mahlon Greenmiller, Pomona, Kansas.**

**POLLED DURHAMS**  
**C. M. Albright, Overbrook, Kan.**

## RED POLLED CATTLE.

## Red Polled Bulls

BRED AND PRICED RIGHT.

**MORSE STOCK FARM**

**NEOSHO, MISSOURI**

## 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

Young bulls and some extra good young cows to calve in early spring. A few yearling heifers.

**I. W. FOULTON, MEDORA, KANSAS**

## RED POLLS, BOTH SEXES, BEST OF BREEDING.

**Charles Morrison & Son, Phillipsburg, Kan.**

## HOLSTEIN CATTLE.



## Butter

## Tests

by Agricultural Societies begun in 1886. At the close of the year 1897, competitive tests between Holsteins and Jerseys were made on 73 different occasions, resulting in an excess of production of the Holsteins of 28% over the Jerseys; an average per day of \$1.392 lbs. for the Holstein and \$1.14 for the Jersey.

It interested in  
**HOLSTEIN CATTLE**  
Send for our booklet—they contain much valuable information.  
**HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 114, Brattleboro, Vt.**

HIGH GRADE  
HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks old, 15-16ths pure. \$25 each, crated and shipped to your station. Express and all charges paid here.

**Highland View Place, Whitewater, Wis.**

## 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, Topeka, Kansas**

**608 Kansas Avenue**

## BUTTER-BRED HOLSTEINS

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

**J. P. MAST, SCRANTON, KANSAS**

## Holstein Calves

Choice, beautifully marked calves from heavy milking dams, either sex. Also cows and heifers. Write

**W. C. Kenyon & Sons**

**Holstein Stock Farms, Box 33, Elgin, Illinois**

## When writing to KANSAS

**FARMER live stock advertisers,**  
please mention this paper.

## \$20.00—HOLSTEINS—\$20.00

Practically pure-bred Holstein heifer calves four to six weeks old, the kind that are bred for production, out of 60-lb. cows and sire carrying large percentage of world's champion blood. Write for further particulars.

**Harris Holstein & Duroc Farm, Sextonville, Wisconsin**

JOIN THE BUY-A-CALF  
MOVEMENT

We are offering high grade Holstein heifer calves, 15-16ths bred, nicely marked, by pure-bred sires and from dams that are giving from 50 to 70 pounds milk daily. We ship them at three weeks old. We are selling them at \$20.00 each crated. Safe arrival and satisfaction guaranteed. We are calf dealers and can handle any sized order. Order from this ad.

**JOHN'S STOCK FARM**

**Watertown, Wisconsin**

## GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

**W. E. BENTLEY, MANHATTAN, KANSAS**

## HOLSTEINS!

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

**T. R. Maurer & Co.**

**EMPORIA, KANSAS**

## CHOICE HOLSTEIN CALVES

12 Heifers and 2 Bulls, highly bred, beautifully marked, and from heavy producing dams, at \$25 each, crated for shipment anywhere. Safe delivery guaranteed. Write

**FERNWOOD FARM, WAUWATOSA, WIS.**

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

**YEARLING HOLSTEIN BULL**—Fine individual. Dam gives 44 to 52 lbs. per day.  
**CASTILLO & SON, INDEPENDENCE, KAN.**

**REGISTERED HOLSTEINS**  
Well bred bull calf born October 31, nearly white, extra good individual. Have other bulls a little older.  
**O. S. ANDREWS, GREELEY, KANSAS**

If on the market for pure-bred stock, read KANSAS FARMER live stock advertisements. You will find what you want.



# 40 Holstein Cows - 20 Poland China Sows

DISPERSION SALE AT SAXTON, MISSOURI, SIX MILES EAST OF ST. JOSEPH, MISSOURI

## Saxton, Mo., Tuesday, April 15, 1919

I have sold my farm and will disperse my herd of Registered and High Grade Holstein Cows and Poland China Brood Sows. Forty Holsteins—twenty-eight cows in milk, twelve two-year-old heifers, three registered cows and four registered



heifers, one registered herd bull. About twenty head of these cows I bought at good prices in the East three years ago and others have been raised on my farm. They are all good working herd and ready to make money for anyone who will give them attention. My Poland Chinas consist of twenty head of brood sows and spring gilts, sired by the great boar, B Wonder, Long Jumbo 2d, Big Bob Model, and Moore's Halvor. Seventeen head have litters by a son of Giant Wonder, he by The Giant, a boar that was grand champion of Missouri, 1915, and weighed, when shown by Mr. Will G. Lockridge, 1,130 pounds. Several of the sows have litters of from eight to thirteen pigs. Others will farrow



B. WONDER

later. Any farmer can make money with these sows and litters.

Several extra good herd cows in this offering, also one herd boar. For catalog write

Thos. E. Deem, Auctioneer

### U. S. Byrne, Saxton, Mo.

Parties will be met at Security Bank, South Park, St. Joseph, Missouri

### FARM AND HERD NEWS NOTES

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

Address All Communications to  
Kansas Farmer, and Not to  
Individuals

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

#### CLAIM SALE DATES.

##### Jersey Cattle.

June 24—Dr. J. H. Lomax, Leona, Kan.

##### Shorthorns.

April 1, 2 and 3—Central Shorthorn Association Show and Sale, Kansas City, Mo. For catalog apply to J. A. Forsythe, Box 8, Pleasant Hill, Mo.  
April 3—Southeast Kansas Shorthorn Show and Sale, Coffeyville, Kan. G. A. Laude, Humboldt, Kansas.  
April 4—Southeastern Kansas Show and Sale at Coffeyville, Kansas.

##### Holsteins.

May 12—A. S. Neale, Manhattan, Kan.  
May 12—Sam Drybread & Son, Elk City, Kan. Sale at Independence, Kan.

##### Hereford Cattle.

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

Samuel Drybread & Son, of Elk City, Kansas, owners of the Star Breeding Farm of Hereford cattle, have announced May 13 for their annual spring sale of Herefords. This sale will be held in Independence, Kansas. The offering will include thirty-eight head of large yearling heifers by the great yearling breeding bulls, Roe Hampton and Gay Lad; twelve head of choice two-year-old heifers bred and forty-seven head of mature cows, twelve with calves at foot and most all bred to drop calves early in the spring. Several head of young bulls, yearlings and two-year-olds, and one herd bull, a son of Bright Stanway. Several of the heifers are half sisters to the great show bull, Ardmore, that was grand champion at the American Royal and International at Chicago, 1917. The offering promises to be the best lot of cattle ever sold from the Star Breeding Farm and probably one of the best lots that will go through any sale this spring sale season.

J. C. Parks, of Hamilton, Kansas, owner of one of the good herds of Percheron horses in Kansas, has made quite a success with this breed of draft horses. Mr. Parks has shown at several of our county fairs and always wins the premiums on his colts and stallions. He is not only a breeder but a feeder. The colts are well grown out, large heavy boned fellows. Oftentimes a yearling two-year-old on other farms. They are grown in a way that insures their future usefulness, and a feature of the herd at this time is an exceptionally fine lot of young stallions, both yearlings and two-year-olds, that promise to grow into ton drafters at three years of age.

O. S. Andrews, of Greeley, Kansas, reports their herd of Holsteins making a good record. Mr. Andrews has built up a very select herd and while the herd is yet small, it is the grand sire of their old herd bull was three-fourths brother to Johanna Rue 3d's hanna Lad. His dam was from one of John B. Irwin's great show cows. Their best cow is largely of the same blood as Colantha Johanna Lad with some of the blood of her from her and a sister with much the same breeding. Another cow has grand grand sire and granddam. She traces several times to DeKol 2d and twice to Sartre. Their new herd bull is from Dutchland Farms. His dam is a 24-pound four-year-old, daughter of Colantha Johanna

Lad. She has a yearly record of 665.37 pounds butter and 16,584.9 pounds milk. Her dam has seven-day record of 605 pounds of milk. Their bull's sire is from a son of Pontiac Korndyke and full brother to Pontiac Clothilde De Kol 2d, 1,271 pounds butter in one year. The sire's dam has 30 pounds and year's record of 1,082 pounds butter and 27,625 pounds milk. She is a daughter of Colantha Johanna Lad and Creamelle Vale. His twelve nearest dams average 27 pounds butter and he has seven-year record dams that average 1,040 pounds butter and 25,448 pounds milk. Fifty per cent of his blood is from Colantha Johanna Lad and Pontiac Korndyke. He has six world's records in first five generations.

Don't forget the big free show of Short-horns at Coffeyville, Kansas, Thursday of next week. It isn't often that such an array of splendid cattle can be seen together. The exhibition is free to all, so you can well afford to take a day off. The students' judging contest, which will be held in connection with the cattle show, should also interest you. The show will be held at Exposition Hall at the fair grounds and all arrangements for the comfort of visitors will be made. Be sure and attend.

P. A. Drevets, of Smolan, Kansas, owner of good herds of registered Hereford cattle and Duroc Jersey hogs, reports his herd doing well. Mr. Drevets has the popular blood lines of both Hereford cattle and Duroc hogs and his herds are drawn upon heavily for high class breeding stock. A feature of his Hereford herd at this time is the choice lot of cows, many with calves at foot, and all bred to a double-standard Polled Hereford bull.

T. D. Morse, manager of Morse Stock Farm, Neosho, Missouri, the home of one of the famous herds of Red Polled cattle now assembled, reports the herd doing fine. The Morse Farm herd of Red Polls is one of the strictly high class herds of that breed and for high class individuality and choice breeding has few equals. A feature of the herd at this time is the fine lot of young stock, including some outstanding young bulls.

T. F. Doran, owner of Dornwood Farm and the famous Dornwood herd of registered Jersey cattle, reports his herd making a fine record. This is one of the Jersey herds in the Southwest that is famous for heavy production. It is bred and a feature of the herd at this time is the fine lot of young stock sired by Blue Belle's Owl 79641 and out of Register of Merit dams.

Dr. J. H. Lomax, of Leona, Kansas, has announced June 24 for his annual Jersey sale. Doctor Lomax is well known among Jersey breeders for the quality of his herd. He is one of the most successful breeders of Jersey cattle in the West and this sale offering promises to be one of the very best lots of cattle that will go through any sale this year. Doctor Lomax formerly lived in St. Joseph, Missouri, but he moved this spring to his farm near Leona, Kansas, where he can give his entire attention to his fine herd of Jersey cattle.

H. H. Holmes, of Topeka, has consigned five head of high class Shorthorn cattle to the Central Shorthorn Show and Sale at Kansas City, Missouri, April 1, 2 and 3, including the great herd bull, Viscount Stamp by Wooddale Stamp and his dam was Ravenswood Emerald by Lavender Viscount, the show that was two times grand champion of America. Viscount Stamp promises to be one of the most promising herd bulls to be consigned to the Central Shorthorn Show and Sale. Mr. Holmes is also consigning three choice open heifers, one an extra choice Orange Blossom and one Secret White two-year-old that is bred to drop calf early in spring. These are all real cattle of exceptional quality that would improve most herds in Kansas.

U. S. Byrne, of Saxton, Missouri, has sold his farm and will disperse his entire herd of Holstein cattle and Poland China hogs, Tuesday, April 15. Several years ago Mr. Byrne went to Wisconsin and bought forty head of the best registered and high grade Holstein cows he could buy for his foundation herd. About twenty head of the sale offering have been raised on the farm. The herd has proven to be one of the profitable dairy herds of Western Missouri. The registered cows are such cows as Sadie Lyons Butter Maid by Crescent Beauty Butter Boy and made a 23-pound record at 3 1/2 years old. She carries 50 per cent of the blood of Greenwood Johanna Lyons, a 26-pound sire. His dam was a champion at the National Dairy Show. Sadie Lyons Butter

Maid is one of the best cows on the farm. Grace Lyons Butter Maid and Muriel Butter Maid are half sisters and are very promising herd cows with splendid records as producers. There are also four choice registered heifers sired by Sir Gerben Butter Boy Korndyke. This bull was bred and used in the herd of H. B. Cowles, of Topeka, Kansas. One two-year-old herd bull sired by Crescent Beauty Segis Pontiac and out of the great cow, Sadie Lyons Butter Maid. The offering is one of the good lots of dairy cattle to be sold this spring and probably as profitable a lot as will go through any sale this year.

#### Pruning Grapes

Of all our fruits, the grape must be pruned the most severely. This is necessary because otherwise the grapevine can set more fruit than it can bring to proper maturity.

As a rule grapes should be pruned while the tissues are dormant but not frozen. In late pruning there is more apt to be trouble from bleeding of the vines. A little bleeding does no harm, though under ordinary circumstances we would prefer to prune grapes in February or March rather than in April and May.

In order that a clear statement can be made regarding the methods of pruning the grape, it will be necessary to define several terms that are used to designate different parts of the grapevine. First, the wood growth of the past season is spoken of as the canes of the grapevine. Older wood is spoken of as spurs or arms, depending upon whether they are short and stubby or of some considerable length. The main trunk of the vine is spoken of as its trunk. Ordinarily in pruning old bearing vines, we pay little attention to the trunk, the arms or the spurs, although occasionally weak and diseased spurs or arms are removed together with all the cane growth that they have attached to them. Pruning the grape then is limited almost entirely to a pruning of the canes. Many of last year's canes are pruned off entirely. If the vines are being trained on a three-wire trellis, all but six canes should be removed; one being left for each wire and for each direction. In the case of a two-wire trellis, all but four canes are removed; there being left one cane for each wire and each direction. In deciding which canes to leave the pruner needs to use his best judgment. Only strong, healthy, vigorous canes should be left. Preferably these should start from the main trunk or from the arms or from the canes of the preceding year at about the same height as the wires along which they are tied. All canes or suckers coming from around the crown of the plant or below ground should be removed, except in those cases where the trunk itself has become diseased or weakened and it is desired to renew it. The canes that are left to produce the fruiting shoots for the coming year should be pruned back so that each will have a minimum of five or six and a maximum of ten or twelve buds or joints. The number that should be left depends upon how many canes are left and how strong and vigorous the individual vine happens to be. Rather weak vines that cannot be expected to produce more than eight or ten pounds of fruit should be pruned back so

#### JERSEY CATTLE.

THE Jersey is famous for the little money it costs to keep her compared with the big yield she gives in return. Owning a Jersey is like having money invested with sure interest. It has required 200 years to develop her perfection—to-day she is supreme. Write breeders for prices and pedigrees and let us give you valuable facts, free.

**The American Jersey Cattle Club**  
375 West 23rd Street New York City

#### SOUTH SLOPE JERSEYS

For Sale—Young bulls and bull calves sired by our Torono and Raleigh bred bull; also two sired by a double line-bred Spirmfield's Owl and Interested Prince bull out of high producing R. of M. dams milking as high as 47 pounds daily, milked twice a day only.

J. A. COMP & SON

Rural Route 4 White City, Kansas  
Please mention this paper.

#### CHOICE JERSEY BULLS

FOR SALE—Four choice young Jersey bulls; two ready for service; all sons of Blue Belle's Owl 79641, Register of Merit sire; two from Register of Merit dams, one from imported dam, one dam now on test. Prices reasonable.

Dornwood Farm, Topeka, Kan.

#### ALLEN CENTER STOCK FARM

Registered Jerseys from choice Jersey-cows. Sire's dam is the highest producing cow in Kansas. Prices reasonable.

TREDWAY & SON, LA HARPE, KANS.

#### 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, KAN.

#### LONGVIEW JERSEYS

(Register of Merit Herd)

Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.

Longview Farm

LEE'S SUMMIT - MISSOURI

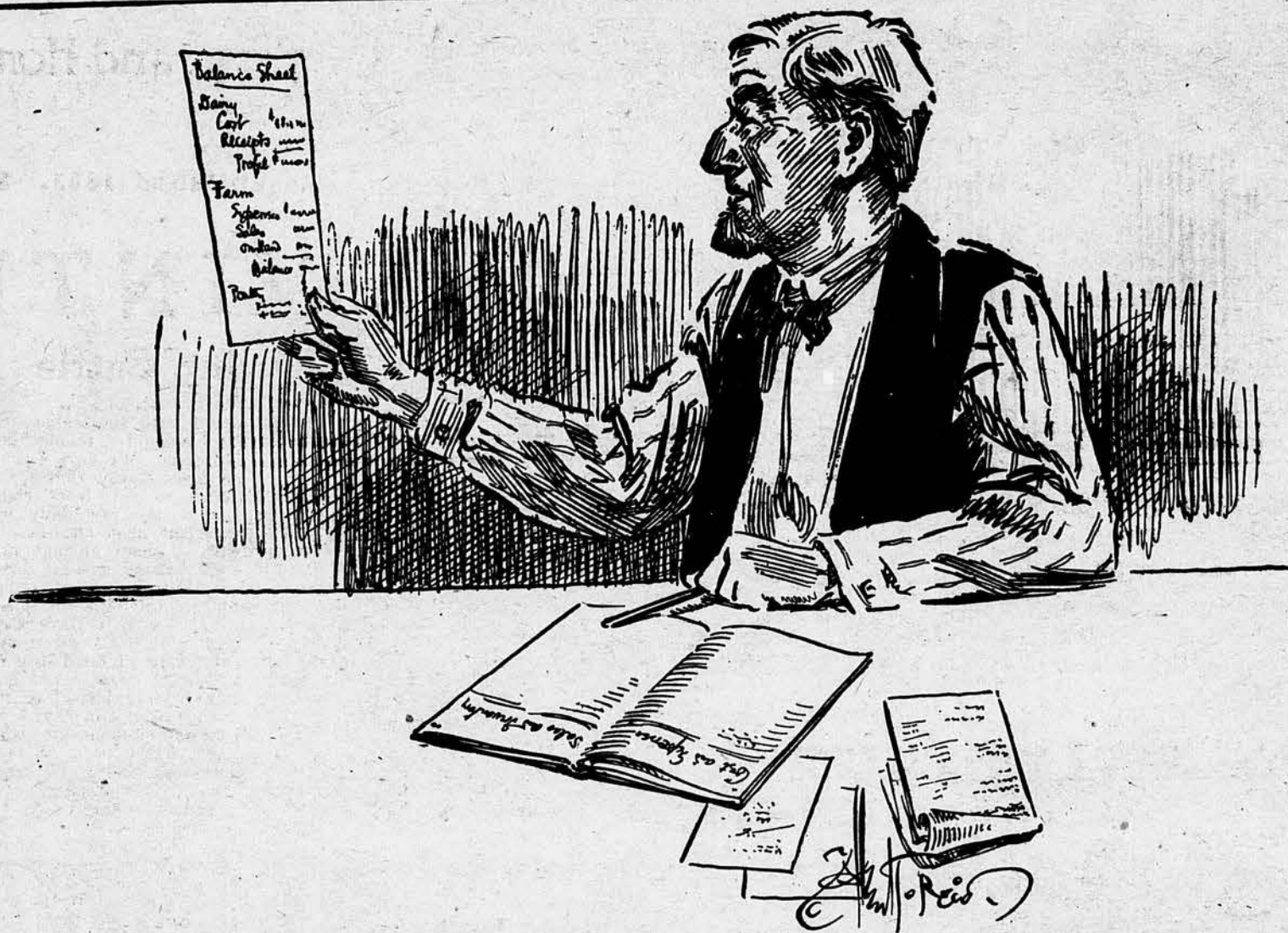
that there are left something like fifteen or twenty buds. Thirty-five or forty buds may be left on the cane growth of very strong vigorous vines that are capable of producing twenty-five, thirty or thirty-five pounds of fruit.

The dependence of the human body on vitamins and the fact that vitamins are present in milk in greater abundance than in other foods is increasing the demand for milk among mothers and reducing the opposition to prices, which enable the dairymen to produce and deliver milk at a profit. The mothers of children in the cities are now beginning to realize that milk in moderate quantities is essential to strong childhood; that the feed and labor costs of its production are greater than ever before, and that it is not as expensive a food as many others in common use. They are, therefore, relaxing their hostility toward prices as they exist today.



# Begin Your Farm Account Records Now !

**THE FIRST OF THE YEAR HAS PASSED, BUT YOU CAN START YOUR RECORDS FROM JANUARY 1, 1919, IF YOU GET YOUR ACCOUNT BOOK NOW. YOU WILL HAVE NO TROUBLE WITH YOUR INCOME TAX STATEMENT IF YOU USE THIS BOOK.**



## FARMERS' ACCOUNT BOOK GIVEN FREE

## GET STARTED RIGHT

There is no better time than right now to begin keeping Farm Records so that you will have the required information ready to make your income tax statement next year. No doubt you are already keeping your records. You want the most simplified and easiest way. Get this book. It's FREE.

# PRACTICAL ACCOUNT BOOK

This book is a **PRACTICAL** Farm Account Book which has been developed under the direction of the United States Government men, working in co-operation with hundreds of farmers in Kansas. It is not merely theoretically correct, but has been prepared to fill the needs as shown

by practical use on farms in this state.

**THIS BOOK WILL MAKE  
YOUR WORK EASIER**

Keeping accurate records of farm business is becoming more and more popular, not only because it is practically necessary for the income tax statement, but also for the value of the records to the farmer. The most important thing, however, is to secure and keep the information desired with the least amount of work and time; that is, in the simplest way.

The book which KANSAS FARMER is offering on this page, FREE to subscribers, is gotten up with the idea of keeping all the information necessary and valuable with the smallest amount of work. The book is a

one-year record. It is small and convenient to keep. It contains full but simple instructions on how to keep the records required, with sufficient blanks for all entries.

**A PRACTICAL BOOK  
NOW IN USE BY  
FARMERS**

The book is published by the **KANSAS BANKERS' ASSOCIATION**. It has been prepared by Dean Edwin C. Johnson and Preston E. McNall, both of the Extension Division of the Kansas Agricultural College, who have done their work on the book in co-operation with the United States Government.

This book has been used in Farm Management studies on hundreds of farms in Kansas where owners have heartily co-operated and offered many val-

uable suggestions for making it thoroughly practical and suited to actual farm conditions. These suggestions have been incorporated in this latest edition.

**CONFORMS WITH RE-  
QUIREMENTS OF THE  
GOVERNMENT**

It is the ultimate object of the Internal Revenue Office to adopt a uniform method of computing farmers' incomes. This includes farm inventories, farm receipts, and farm expenses, and follows very closely the book which is given by KANSAS FARMER to its subscribers. From year to year there may be a few slight changes made. For this reason it is best to buy a one-year book in order that each year your book will conform to the Internal Revenue rulings for that year.

## OUR OFFER

We will mail you ABSOLUTELY FREE and postpaid one of these Account Books with your renewal subscription to KANSAS FARMER at \$1.00. Send us your order today and get your accounts started in such a way as will be easy to keep and which you know will be correct.

# ORDER BLANK

KANSAS FARMER, TOPEKA, KANSAS.

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

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

Town..... State.....