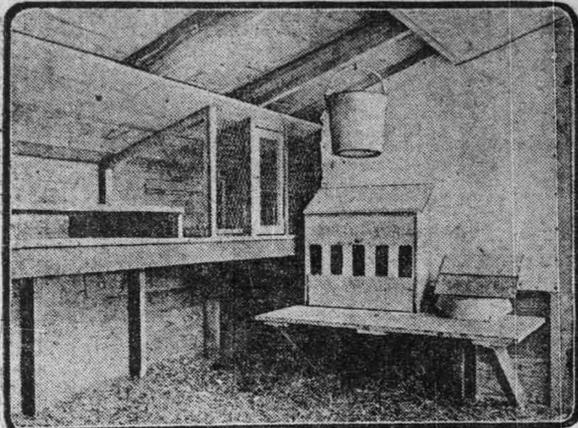


## PRODUCTION OF EGGS IN COLD MONTHS DEPENDS ON FEED AND CARE GIVEN HENS

Houses Should Be in Good Shape and Birds in Good Health—Keep Them Busy Working Through Deep Litter for Their Morning Meal to Instill Vigor—Dust Bath Is Essential.



Interior of Well Furnished Poultry House.

As the winter months are on and the eggs are soaring high in price, it means that good care should be taken of the fowls. See that the houses are in good shape and the birds are in good health. Now is the time to give a little condition powder in the mash to regulate their systems if they are sluggish after the moult, as it will live them up for their work.

During the cold days, writes C. L. Parkhurst, in Feathers, get a good, deep litter to make them work for their morning feed, as it will give them vigor. Don't feed too much, so that they will fill up and sit around and get in the corner and mope. Give them a small allowance in the early morning, so that by ten o'clock they will be ready for a little green food that will live them up again and keep the ball rolling. About one o'clock they will relish a small feed of mash or ground bone.

That will keep them busy until their night feed, which should be of hardy grain and warm, so their organs will have some work to do overnight. In this way they will welcome you every time you go in the house with their song and cheer that means health and vigor. It won't be many weeks before the eggs will begin to come your way, and you will get a good return for your work. A good many think if you feed a hen in the morning and give a little ice water to drink that is all you should do. But the more we work with our hens the better the returns we will get.

Every time you go in your house, if it is ten times a day, pick the litter up in a pile and put in a handful of wheat, and see what enjoyment the birds will have kicking it around and singing as they do it. This shows joy and happiness. If you keep this up all winter, you will not have any sick and puny birds. When breeding season comes your stock will be full of vigor, and the result will be fertile eggs, strong and vigorous chicks, that if properly hatched and brooded will grow up to good and healthy stock that will be a pleasure for you

to see and the neighbors to enjoy. The dust bath is just as essential in winter in keeping the fowls free from lice as it is in summer. Lice multiply in winter as well as in summer; not so rapidly, of course, yet fast enough in the average poultry house to make life a torture to the hens if nothing is done to keep the pests in check. The dust bath will help in the fight against the pests as much as anything else.

The dust must be dry when put out for the fowls' use. Chickens will not dust in damp earth in cold weather. The dust should be fine also. As it is collected, sift it, so as to discard all the stones and lumps. The supply of dust in the poultry house ought to be renewed at frequent intervals. Hence the importance of collecting a considerable amount of it. In two or three weeks the dust boxes will become fouled, and they should be emptied then and refilled with a fresh supply. On very cold days it is a good idea to slightly warm the dust before taking it to the chickens' quarters. Where the flock is not large, and only a small amount of dust is required, it can be warmed in the house without much trouble. Then, when it is taken to the poultry quarters, place it in the sunshine or the light of the windows.

Another important essential for the poultry flock is a plentiful supply of grit. This probably is a more important essential than the dust bath. A hen may get a long without the dust bath, but she cannot get along without grit. Grit is the hen's teeth. The gizzard of a fowl requires it, and when this organ does not contain grit the food consumed by the fowl cannot be digested, and consequently it is wasted.

The birds that are not equipped to digest their food properly are not going to lay many eggs, even if they keep in good health; but the chances are that they will not keep in good health. Bowel trouble in the flock can be often traced to an insufficient supply of grit, and a large number of the hens may die from this cause.

## EXPERIMENTS IN USING SKIMMILK

Found Best at South Dakota Station to Stick to One Kind for Good Pork.

In a report of a recent test at the South Dakota Experiment Station to determine the comparative value of sweet skim milk, sour skim milk and buttermilk with corn for pork production, the following statement is found:

"Each bushel of corn fed without milk yielded an average of 11.9 pounds of pork. Each bushel of shelled corn fed with 154 pounds of sweet skim milk yielded an average of 17.9 pounds of pork. Each bushel of shelled corn fed with 153 pounds of sour skim milk yielded an average of 17.6 pounds of pork. Each bushel of buttermilk fed with 153 pounds of shelled corn yielded an average of 17.7 pounds of pork. The records show that an average of 153 pounds of milk and one bushel of corn yielded an average of 17.7 pounds of pork."

From which two lessons may be drawn. First, what is generally known, that milk added to corn makes a much more economical ration than corn alone. And second, that the hog makes as efficient use of any one of the forms of milk as of either of the others.

So from a practical standpoint it doesn't matter whether we feed sweet skim milk, sour skim milk or buttermilk. It no doubt is best, however, to stick to one kind. As to palatability, individual taste, that probably varies in hogs as it does in people—some like the milk best in one form and some in another, and we can't please all.

### Feeding Value of Alfalfa.

Alfalfa leaves contain most of the feeding value of the alfalfa plant.

## PAYING HENS ARE FROM BEST STRAINS

Profitable Birds are Delight to the Eye and Help to Fill Pocketbook.

The paying hen is usually hatched from a paying strain. The paying hen that comes out of a flock of good-for-nothing birds is seldom met and is not worth hunting for. It takes time, it takes money and it takes born sense to produce a flock of paying hens. It takes a very little neglect to send this flock back to the class of the non-paying birds.

Paying birds are a delight to the eye. You show them to your friends and linger in your description of what they are and what they have done for you. This class of birds, because they pay, receive thought and attention from you. You will gladly take care of them; you are willing to properly mate and feed them, and you look for fresh blood to improve them.

Paying birds never make up a large part of your flock when you sell the cream of the choice chicks every year. Money-making flocks are made up of the best you raise, always letting the second quality go to market.

Paying birds live in houses free from vermin and supplied with pure air and water. They get food that is needed to bring the profit to the proper point. Cheap food because it is cheap never helped to produce the paying hen and keep her running to the nest.

Hens that pay splendid profits are what the world is asking for, is looking for and is demanding. Are you going to be among the breeders who will fill the orders for this kind of birds?

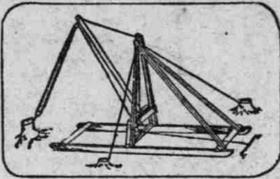
### Comfort for Pigs.

Don't forget the pigs on cold nights, but give them a good warm bed of straw.

## DEVICE FOR PILING STUMPS

Machine Designed by Wisconsin Man Found Quite Successful—Details of Construction.

A stump and log piler which has been quite successfully used by many settlers in upper Wisconsin is that which was designed by Frank Conrath of Rusk county. After the stumps have been pulled or blown out the piler can be moved into the field and the "roots" and waste logs can be piled ready for burning. By tilting the piler on one side the swinging boom or arm will carry the stumps to the lower side of the machine where they can be easily piled, says the Iowa Homestead. Following is the bill of lumber and hardware required to construct a piler: Three skids (6 inches by 8 inches by 22 feet), three



Stump and Log Piler.

cross beams (8 feet long), two standards for a frame (3 inches by 8 inches by 18 feet), two brace poles (6 inches by 6 inches by 20 feet), one pole for swinging boom (8 inches by 8 inches by 20 feet), a few timbers of planks to set boom on, 150 feet (1 inch by 2 inches) steel cable for main line and guy ropes, three steel blocks for main pulling cable and two small blocks for guy cables.

## KEEP ACCOUNT OF EXPENSES

Few Minutes Needed to Keep Up Set of Books Will Yield Large Returns to Farmer.

(By R. G. WEATHERSTONE.) A farm is a combination of enterprises, and a study of each enterprise in its relation to the others is of the utmost importance. Wheat may be a profitable crop to grow, oats an unprofitable crop. Records of the separate farm enterprises will show the facts in each case.

Labor distribution records are seldom kept by farmers, yet such records are in many respects equally as important as the cash account. A good bank balance is often the result of the efficient use of farm labor.

Crops which are grown at a profit may, by being fed to a poor class of live stock, have this profit turned into a loss. Live stock records, although not so easy to keep as those on crops, are often more useful to the farmer. It is poor policy to lose by injudicious feeding the profits on the crops grown.

Live stock production records are a guide to the qualities of animals kept; such records are of the utmost importance to the dairyman.

Good accounts are within the reach of every farmer. The few minutes regularly spent on them will yield larger returns than an equal amount of time devoted to farm work, provided proper use is made of the information the records contain.

## CARE OF HORSE AND STABLE

Powder Good for Skin Disorders Is Given—Many Crooked Legs of Colts May Be Saved.

The following powder given each day is said to be good for skin disorder in horses: Finely powdered iodine of potash, four ounces; granulated sugar and common salt, of each one pound. Mix well together and divide into 32 powders. Feed no corn but let the grain feed be oats and wheat bran. Use tincture of iodine on the lumps every second day until the skin becomes a little tender.

Dr. Smeed says that many a crooked limbed colt can be helped by using a mixture of alcohol two parts and olive oil one part on the knees and tendons twice per day and each thorough hand rubbing. Each time straighten the leg and bring it into place several times. This will stretch the tendons and loosen up the joints and ligaments. Don't be afraid to rub and manipulate the legs into proper form.

### Garden Rubbish.

A few old fence rails, built together in a square in the garden, will hold all the rubbish that is fit for decomposing. Add to it the weeds from the garden and manure and all ashes from the house. Pour the wash water over it and allow it to pack thoroughly. It will be of value for next spring, while it concentrates now all the wash refuse and prevents the hens from broadcasting it again.

### Profit in the Hog.

Years of experience and close observation, together with a carefully kept account of all feed, etc., have demonstrated that there is no more profitable animal on the farm than the hog; and no variety of farm stock that will so quickly lift a man from dependence to independence when properly fed and cared for.

### Quail Is Neglected.

A part of the poultry on the farm is that covey of quail you have observed in the back fields somewhere, and a little attention to those small fowls is worth while.

### Treatment of Diarrhoea.

The best treatment for young chicks with diarrhoea is hulled rice and hulled milk.

## FEW NON-PRODUCTIVE HENS

Several Found Among Competitors at National Egg Contest That Never Laid an Egg.

One of the surprises of the national egg contest at Mountain Grove, Mo., was that several hens among the competitors were found that never laid an egg. They seemed healthy and ate as heartily as other hens in the pen, but never laid a single egg.

How to account for this is a matter that puzzles the experts. We don't know that they could find out, says the Kansas Farmer, even by killing the hens and examining them. They can only say they were non-productive. The finding of these non-producing hens could only be found out by the use of trap nests, where a daily record was kept of all the hens that laid or didn't lay any eggs.

It is undoubtedly true that there are a great many non-productive hens in the flocks of this country, and it would be a fine thing if they could be found out, so as to be eliminated from the flocks. The use of the trap nests for this purpose, on the ordinary farm, is out of the question, for the farmer would not have the time to attend to them even if he did have the nests.

Still, he can do a great deal towards the elimination of the non-producers by observation. He can get rid of all the hens that are over three years old, for after that age they do not lay many eggs. The superfluous roosters that are generally on every farm are, of course, in the non-productive class, and should be disposed of at once.

## METHOD FOR HOLDING WORK

Where Heavy Timbers Are to Be Sawed Plan Shown in Illustration Will Be Satisfactory.

(By WILLIAM GROTZINGER, in the Scientific American.)

A good way to hold large, heavy work that is to be sawed is shown in the sketch. The work is passed through the triangular opening in a wooden frame, nearly in the form of the letter A. When the frame and work lie at an obtuse angle they constitute a three-legged stool. The upper edges of the board become wedged fast in the sides of the triangle, and the lower side of the board rests upon a cross piece, which can be placed at



Device for Holding Timbers.

various heights, according to the size of work that is to be held. In sawing, the man rests his knee on the work, near the top of the frame, and the board is changed end for end, when sawn through half its length.

## PROPER CARE FOR PASTURES

Mistake to Think That Close Cropped Blades Will Produce the Most Feed During Summer.

A man needs and wants all the income he can get safely from land. It must be that some of us really believe that more can be gotten from a field by close pasturing than by letting the grass have a chance to get and keep ahead of the stock. If it were not believed certainly there would not be so much close pasturing. The man who is hardest up and needs the most income, too often is the one that overstocks his grass. It is a big mistake to think that an acre of grass plants will produce the most feed during the summer by keeping the blades cropped close to the ground. It simply cannot, but will produce less than it should and would if there were good leaf surface to enable the plants to do their work of growing. Plenty of leaf surface is necessary to rapid growth. The way to get the most possible pasturage from a field during the season is to let the grass get a fair start in the spring and then let it keep ahead of the stock. And then there is another year coming, as we believe, and the field too closely pastured this year cannot produce a full crop of grass next year. These things being true, they should be believed.

### Feeding Green Corn.

Feeding green fodder corn to cows in the pasture leads to no end of restlessness. They seem to imagine that every man, horse, or team crossing the fields is bringing them corn. They are constantly chasing every vehicle, that comes in sight, expecting to get a feed of corn. While it is some more trouble to feed in the stable, it seems to be the only satisfactory way of feeding corn to cows while they are on grass.

### Chicken Relish Sour Milk.

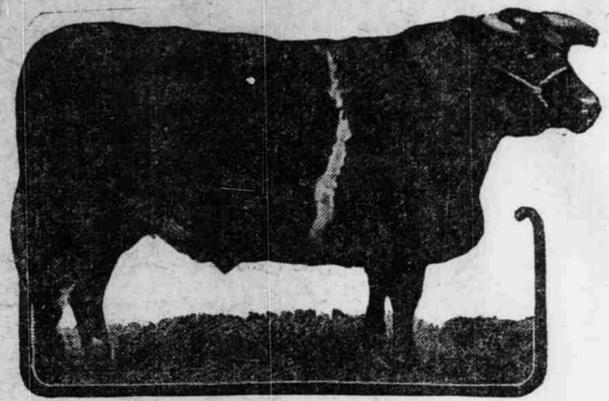
Sour milk is more relished by fowls than sweet milk; sweet skim milk is best for mixing mash. The birds will drink more milk if given either uniformly sour or uniformly sweet than when given sweet one day and sour the next. When the milk is separated after souring, use the whey to wet the mash.

### Toadstools.

Twenty-two persons were killed within a week in New York and vicinity by eating toadstools. Grocers are cautioned to use the greatest care in buying mushrooms and the producers are warned with equal earnestness.

## INEXPERIENCED CATTLE FEEDERS SUFFER HEAVY LOSS IN PREPARING FOR SHIPMENT

Larger Amount of Feed Is Consumed by the Beef Animals Than Any Other on the Farm—As a Rule Feeds Are Lacking in Protein—Secret of Shipping Is to Have Them Well Fed.



A Prize Winning English Shorthorn Steer.

Beef cattle should be found on every farm where cattle are not handled for the exclusive production of milk. Whether or not the farmer enters the dairy business or handles beef cattle, should depend upon the amount of labor available in proportion to the crops produced, the demand for milk and its products, and the equipment for the proper production of milk. Beef cattle will consume a larger amount of feed than any other class of farm animals in proportion to the labor necessary in handling them. They are especially adapted to the utilization of roughage, require a small outlay for buildings and equipment, and return to the soil a very large percentage of the plant food consumed, thus reducing expense of fertilizer.

It is not always the heaviest feeders who get the best results. Every animal requires certain nutrients that enable it to perform its best work. If these nutrients are not supplied in the proper proportions, it means that the animal must consume and adjust larger amounts of some of the elements that it can use, in order to get enough of the others. Economical feeding requires that nutrients be supplied to animals in the proportion needed. As a rule, farm feeds are lacking in protein. If one is feeding cornstalks or wild hay, the farm grains will supply enough protein to meet the animal's needs for best work. This is especially true of dairy cows and young stock. When this form of roughage must be fed, some such feed as bran, middlings or oil-meal must form a reasonable proportion of the grain ration, in order that the protein supply may be maintained.

Inexperienced cattle feeders frequently suffer quite a heavy loss on account of the shrinkage in weight between the time the cattle are taken from the pasture and the time they reach the market. The shrinkage is usually due to the careless feeding in transit, or lack of preparation of the cattle before they are put on the

cars. Experienced shippers seem to be agreed on the point that cattle which have been heavily fed for some weeks, should be prepared for shipment by withholding the usual grain feed for a day or two previous to shipping, and substituting for this grain feed roughage in the shape of good hay. Some very good advice along this line is given by John Clay in Henry's Feeds and Feeding, as follows:

A day or two previous to shipping, feed the cattle in a pen, and feed hay only. The secret of shipping all classes of cattle is to place them on the cars full of food, but with as little moisture as possible.

A steer full of water is apt to have loose bowels and show up badly in the yards; properly handled, cattle should arrive in the sale pens dry behind and ready for a good fill of water—not very thirsty, but in good condition to drink freely. Many shippers think that by salting their cattle or feeding them oats they can fool the buyers, but it always goes against them to use unnatural amounts.

As to feed on the road, nothing equals good sweet hay, which excels corn or other grains, because it is easily digested and does not fever the animal. Of water in midsummer, care must be taken to supply the animal wants, whereas in winter a steer can go for many hours without a drink. Cattle should arrive at the sale yards at from 5 to 8 a. m., appearing on the scene as near the latter hour as possible, since they always look better just after they have been fed and watered.

Funkhouser advises feeding all the hay the cattle will eat, and reducing the grain feed at least one-half two or three days before shipping. For steers in transit, allow 250 pounds of hay and one and one-half bushels of grain per car. Steers on pasture that have had corn should be taken off pasture twenty-four hours before shipping, and allowed half a feed of corn with plenty of hay.

## KAFIR IS AS GOOD AS CORN FOR FEED

Silage Made From It Is Even Better Than Ordinary Kind for Live Stock.

Kafir is as good a feed as corn. Because farmers are learning this, kafir has become one of the most important crops grown in Kansas today. The grain is valued highly as a feed for all classes of live stock. In feeding, five bushels of kafir seed are considered as being equivalent to four bushels of shelled corn. It should be ground for all classes of live stock, excepting poultry, as it is so hard that they do not masticate it thoroughly if it is fed whole. It should never be fed wet.

Silage made from kafir excels corn silage as a feed, as the percentage of grain and leaf to stalk is much higher in the kafir. The same thing is true in regard to kafir fodder and corn stover.

Some of the farmers over the state cut their kafir with a corn binder. They then cut the heads off with a knife, similar to a tobacco cutter, only much larger, which is attached to the side of a wagon box. The heads are allowed to fall into the wagon box and are then threshed. The fodder which is left is excellent feed. Some persons have advocated the feeding of this fodder to horses suffering from the heaves, but Dr. C. W. McCampbell, assistant professor of animal husbandry at the Kansas Agricultural college, says that it has no more value for this purpose than any other similar feed.

### Keeping Sheep in Condition.

Doctoring sheep is expensive and often unsatisfactory, unless the symptoms of the disease are clearly understood. If sheep are not exposed to bad weather in the late fall, and are given proper care and feed, there is not much show for disease, unless brought in from other flocks. With sheep an ounce of prevention is worth considerably more than a pound of cure.

## PREVENTING GRUB IN HEAD OF SHEEP

Noses of Animals Should Be Tarred Often During Fly Time to Repel Pests.

The condition known as grub in the head is caused by the presence in the cavities of the head between the eyes of the larva (worm stage) of the sheep bot fly. The trouble is confined to sheep and occasionally goats. The eggs are laid in the nostrils of the sheep during the summer by a yellowish-gray fly somewhat larger than the house fly. The eggs hatch and work their way up into the cavities of the head between the eyes, according to the Southern Agriculturist, but not in the brain. They attach themselves there and remain about ten months, when they loosen their holds and are sneezed out and burrow into the ground. There they pass through another stage, emerging in a month or six weeks an adult fly, and the life cycle is begun over again.

A few grubs may not cause enough trouble to be noticed. However, if there are many a thick, dirty, white or yellowish discharge is caused; coughing and sneezing; tossing of the head and weakened gait. Sometimes death results.

A veterinarian can relieve the sheep by trephining, but prevention of infection is a better practice. In fly time the noses of the sheep should be tarred often. Some force their sheep to take their salt through an auger hole and keep it smeared with tar during fly time. A dark shed where the sheep may escape from the flies is a great help.

### Small Farms.

A farmer near Philadelphia took a little farm of 15 acres. Upon that farm he was enabled to grow the first year enough to winter two head of cattle and a horse, and in a number of years he was able to winter 30 head of cattle and two horses, and had hay to sell. He employed a man and a boy. If you figure that up it comes to about 20 men on 100 acres of land.