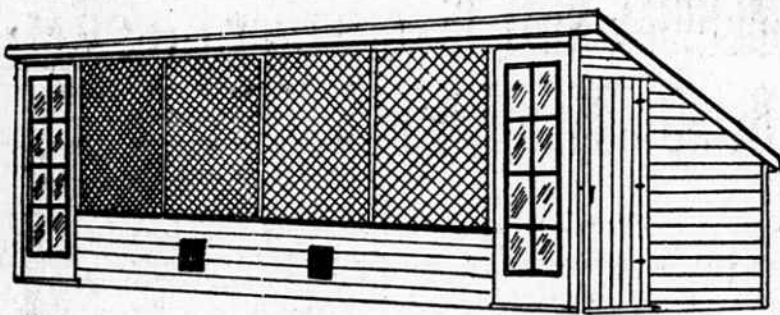


REDUCTION OF POULTRY YARD EXPENSES



Sanitary Houses are Necessary for the Laying Hens.

All kinds of grain, both whole and ground, are so high in price that it will pay us to study how to feed the hens as cheaply as possible and still secure good results.

Bran is a heavy expense, and the amount used can be greatly lessened by feeding cut clover, or cowpea hay. These contain the same elements as wheat bran and are very palatable for the hens when steamed.

Cut or break the hay into small pieces, pack into a tub or bucket and pour over it all the boiling water it will absorb, then cover closely and let stand thirty or forty minutes before feeding. In the winter when the hens cannot get green grass they relish this very much.

Sprouted grains are another cheap food. This was sold a few years ago as a poultry "secret" of feed at fifteen cents a bushel. Oats are generally used for this, although wheat, rye and other grains are as good.

The grain should be soaked for twenty-four hours, or even thirty-six hours, in warm water, then spread in shallow boxes and kept in a warm place. Keep moist by sprinkling two or three times a day with warm water. Feed when the sprouts are about two inches long.

The hens will eat grains and sprouts both and by the process of sprouting the amount of feed is greatly increased without increasing the cost.

Sunflower seeds, if raised in the odd corners where nothing else will grow to advantage, really cost us nothing. Hang the heads up where the hens will have to work a little to get them, or scatter the seeds around in the litter.

If these seeds are fed mixed with

the other grains that are scattered in the litter, or as a change from the others, it will of course not be necessary to feed so much of the expensive grains.

The small potatoes and the potato-parings and trimmings from other vegetables used in the house can be boiled, salted and peppered, as for the table, and a little bran and cornmeal mixed with them, just enough to take up the surplus moisture, so that the mixture will not be sloppy. This makes a good, and also a very inexpensive mash feed. With it may be mixed the meat scraps.

Beef bones and scraps should be run through a bone cutter, or be chopped up by hand into small pieces, before giving to the hens.

Skim milk costs really nothing on the farms, and if the hens have all of it they will drink, they will not eat so much other food.

If these cheap feeds are handled right, it will leave only the last feed at night to be of the high-priced grains, and if well fed during the day on these other things, they will not eat so much of it then.

They should have a good feed of grain, mostly corn, for their supper, in order to keep them healthy and supply podily heat during the cold weather.

By following these suggestions, the hens can be almost entirely kept on the waste products of the farm, and what is received for the eggs will be nearly all profit.

If properly housed and given plenty of clean water to drink, they will lay well on this bill of fare, and we can rejoice over a good supply of eggs when the prices are soaring.

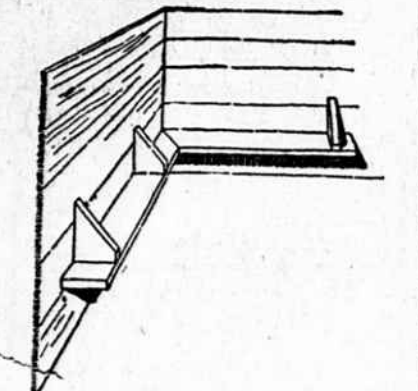
WEANING LITTLE PIGS

Much Depends on Number of Litters in a Year.

V-Shaped Troughs Placed on Cement Floors Are Most Satisfactory—Broken Pieces of Charcoal Are Relished by Animals.

(By J. J. FULLER.)

The length of time pigs should be allowed to suckle their dams depends largely on whether one or two litters

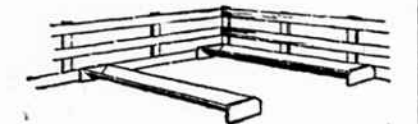


Corner of Farrowing Pen Equipped With Fender to Prevent Sow From Crushing Any of the Pigs When She Lies Down.

a year are to be raised. If but one litter, the pigs may nurse 12 or 13 weeks; where two litters are produced, the pigs cannot nurse longer than eight weeks. The sows should be separated from the pigs, only returning to them two or three times and then only long enough for the pigs to empty the udder.

After weaning time the sows are no longer given the rich, heavy ration supplied during the nursing period. Until their milk flow stops they should be put on grass with plenty of fresh water to drink and given but a limited allowance of dry feed.

After the pigs are weaned they should be continued on the ration which had been given them when running with the mothers. The ration can be most satisfactorily given in the form of a thick slop and fed in



Cement Feeding Floors Save Feed—The V-Shaped Troughs Are Desirable.

V-shaped troughs placed on a cement feeding floor. Shelled corn also may be fed on a clean spot on the floor. Either wood or corncob charcoal broken into pieces about the size of a hickory nut, is greatly relished by the early pigs while still confined in the spring before pasture grasses are available.

The farmer who has skim milk, clover or alfalfa, and grows corn will need to purchase but little feed for his swine. Middlings, oil meal and tankage are all valuable nitrogenous feeds and should be fed as supplements to

corn. Of course too liberal feeding of corn in the early growing periods is injurious. Usually, for the first six to eight weeks after weaning, it is not best to make corn more than one-third of the grain ration. Skim milk is always a splendid feed for swine; and if available in sufficient quantities to form the greater part of the liquid in the ration, oil meal need not be fed. One hundred pounds of skim milk are sometimes considered equal in value for pig feeding to one-half a bushel of corn.

STORAGE OF SWEET POTATO

Ordinary Cave or Cyclone Cellar Makes Very Acceptable House—Crates Give Best Results.

(By N. O. BOOTH, Department of Horticulture, Oklahoma Agricultural College.)

Sweet potatoes should be kept in a building which is almost impenetrable to outside heat or cold. One of the best buildings we have found for this purpose is the ordinary cave or cyclone cellar. Such a cave, if fitted with double ventilators, makes a very acceptable sweet potato storage house.

The potatoes themselves had best be stored in crates, although racks give quite good results. As soon as they are taken from the field into the house, fire should be started in the stove, and the temperature run up to 100 to 110 degrees. This should be kept up from four to ten days until the potatoes are perfectly dry. The temperature should then be allowed to fall, and by opening the doors at night and closing them early in the morning the temperature should be kept down to between 45 and 50 degrees. In this manner sweet potatoes may be kept ordinarily quite satisfactorily.

GENERAL FARM NOTES

Push the pullets along to rapid maturity.

Never yell at a horse, it reflects upon yourself.

Swiss chard has proved worthy of a place in the garden.

Give the cream room for agitation, which insures quick churning.

In producing milk we get no profit until the cost of feed is covered.

Carrots should be so irrigated as to be kept in a good growing condition.

It is the fault of some men if a horse has bad manners, or a bad habit.

Don't keep the ram with the ewes. Give him light, clean, dry quarters by himself. Keep him thrifty by good care and sufficient feed.

Lying on cement is apt to bring lumps on the upper part of the legs of cattle. Either bed deep or plank the cement over.

LIVE-STOCK-FRUIT-DAIRYING-GARDENING-FIELD CROPS-SILOS-PIGS

New Wrinkles
In
Progressive
Agriculture

FARM AND FIELD

Making the
Farmers'
Business
Profitable

TOLD IN AN INTERESTING MANNER EXPRESSLY FOR OUR READERS

PRUDENT TREATMENT OF EWE

In Winter Keep Her on Clover or Alfalfa Hay Until After Lamb Comes—Give Some Wheat Bran.

A sensible treatment of the ewe that lambs in winter is to keep her mostly on clover or alfalfa hay until after her lamb comes. There will be no need to limit the amount of hay that she consumes after lambing and then when her lamb takes all her milk and wishes more, begin feeding her a little wheat bran. For a week bran will suffice, gradually increasing the amount fed, then there may be added to it a little chopped corn or barley and a little later some oil-meal. A pound a day of this mixture will keep her in good milk flow and it must be gradually led up to for about ten days.

About the right proportions of this mixture are 100 pounds of wheat bran, 100 pounds of chopped corn and 20 pounds of oil-meal. This with clover or alfalfa hay will push her to a very heavy milk flow. If she is a large ewe she may consume more than a pound to advantage, as much as two pounds being consumed by some large Dorset ewes.

If this feed is so gradually introduced to the ewe that her digestion is not disturbed nor her milk flow stimulated too much at first, there is small danger of overfeeding her, supposing that the lamb is to be pushed for early market. Her unselfish nature turns the feed quickly into milk and little of it goes to nourish her own body.

HORSES IN STORMY WEATHER

Sufficient Care Not Always Observed When Animal Has Been Heated After Strenuous Drive.

It is not generally realized to what an extent loss in horseflesh is suffered on account of exposure in stormy and cold weather, not only in cities, but also on farms. When the horse is driven rapidly or required to draw heavy loads, the action of the heart is increased, the blood circulates more freely and rapidly to the lungs and the surface of the body, and he comes heated. Then the horse sweats more or less, and when in this condition is more sensitive and more liable to be injured by currents of cold air or by exposure to rain. This is not sufficiently considered, and it is a very common occurrence to see such a horse left by his driver to stand in the street without any protection whatever until he is chilled through. Even where there is some appearance of care, in the way of providing a blanket for use on such occasions, this is frequently put on in such a way as to leave the most sensitive portions of the body exposed. When a horse is allowed to stand so the currents of cold air strike the breast, the result is likely to be more or less serious lung trouble, and this may be brought about in much less time than many suppose.

SLAUGHTER HOGS IN WINTER

Good Plan to Provide Double Hook, Bent Into "U" Shape, to Support Gambrel Stick.

Farmers use a pole to hang the hogs on at slaughtering time in winter. On this pole a gambrel stick is placed, the ends being inserted in the hook of the animal's leg. It is always a hard job to do the hanging and place the gambrel stick at the same time, writes Leslie R. Sutter of Towanda, Ill., in Popular Mechanics. A better way is to provide a double hook of metal, heavy enough to support the animal, and hang the gambrel stick on this hook, as shown. The metal may be square or round, bent into a U-shape of such dimensions that it will fit over the timber used in hanging the hogs and with a hook formed on each end. It is an easy matter to insert the gambrel while the hog is lying on the work table, then lift it by the gambrel and place the latter on the hooks.

Winter Shed for Wagons.

If there is no room in the barn for the wagons during winter time, a few dollars will build a shed in which to shelter them from the storms. The saving in paint and strength of wood would astonish you if there was any way to estimate it.

Fresh Pork is Relished.

Have you got a pig in the pen for fattening? Fresh pork is relished at this time of the year and there is no reason why the farmer should not be entitled to the best that may be had. The farmer's wife has plenty of work to do this time of year without dressing chickens.

Look Over Seed Corn.

Now is the time to begin looking over the seed corn. Test it carefully with some of the improved seed testers. It is much better to test your seed corn in the house than to test it in the field when planting time comes.

ROADS IN BETTER CONDITION

Split-Log Drag of Great Service in Keeping Thoroughfares in Shape—How It Is Built.

The use of the split-log drag is important in putting the roads in shape. There are over 2,000,000 miles of earth roads in the country, and the split-log drag is of great service in keeping them in economical repair. The drag is used in many states and in foreign countries. It is used with two, three, or four horses, and is easily constructed.

It is a mistake to construct a heavy drag. A dry red cedar log is the best material for a drag. Red elm and walnut when thoroughly dried are excellent, and box elder, soft maple or even willow are preferable to oak, hickory or ash.

The log should be seven or eight feet long, and from ten to twelve inches in diameter, and carefully split down the middle. The heaviest and best slabs should be selected for the front. At a point on the front slab four inches from the end that is to be at the middle of the road locate the center of the hole to receive a cross stake, and 22 inches from the other end of the front slab locate the center for another cross stake. The hole for the middle stake will lie on a line connecting and halfway between the other two.

The back slab should then be placed in a position behind the other. From the end at the middle of the road measure 20 inches for the center of the cross stake, and six inches from the other end locate the center of the



The Split-Log Drag.

outside stake. Find the center of the middle hole as before. When these holes are brought opposite each other, one end of the back slab will lie 18 inches nearer the center of the roadway than the front one. The holes should be two inches in diameter. Care must be taken to hold the auger plumb in boring these holes in order that the stakes shall fit properly.

The two slabs should be held 30 inches apart by the stakes. The stakes should taper gradually toward the ends. There should be no shoulder at the point where the stakes enter the slab. The stakes should be fastened in place by wedges only. When the stakes have been placed in position and tightly wedged a brace two inches thick and four inches wide should be placed diagonally to them at the ditch end. The brace should be dropped on the front slab, so that its lower edge shall lie within an inch of the ground, while the other end should rest in the angle, between the slab and the end stake. A strip of iron about three and one-half feet long, three or four inches wide, and one-half of an inch thick may be used for the blade.

An ordinary trace chain is strong enough to draw the implement, provided the clevis is not fastened through a link. The chain should be wrapped around the rear stake, then passed over the front stake. Raising the chain at this end of the slab allows the earth to drift past the face of the drag. The other end of the chain should be passed through the hole in the end of the slab.

Make-Up of Dairy Cow.

A wide, deep and full barrel or side is very important in a dairy cow. She must have plenty of room in which to manufacture milk from food and a large barrel indicates large digestive organs. A wide mouth and long, strong jaws also indicate that Bessy is, like Bill Nye, "fond of food." She ought also to have a large belly and moderately high flank.

Beautify Home Grounds.

Set out fruit trees where they will add to the beauty of the grounds.

HOW TO HANDLE PRIZE-WINNING POULTRY



Black Langhane.

First, know what sort of a bird is a prize winner. To do this study the pictures of winning birds that are shown in the farm papers and poultry journals. Compare the best of your flock with these. When you go among the flock to pick your birds, look for those that have grown rapidly, and are well feathered.

Don't take those that have dull, lifeless feathers.

Don't take any that are out of proportion, or that show any sort of a malformation, as a crooked back or breastbone.

Don't take birds which are supposed to have clean legs and feet and which have feathers there instead. It doesn't pay to show fowls which will be disqualified.

There are minor faults, however, which may be overlooked. For it doesn't matter greatly whether a cockerel has one too many points on his comb. Too much stress should not be laid on faults which do not really disqualify.

After the birds are selected, they should be tamed. Tame birds act better in the show room. Take them up and handle them. Practice putting them into show coops, handling them carefully so as not to frighten them. Never take a bird up by its feet. Put it into the coop head first and take it

out by grasping it by the thighs, over the wing and under the breast. In this way the bird cannot flap its wings and break them, and you cause it no discomfort. Practice up on some of your common stock before you tackle your show birds. When you have learned how to do it you can handle them all you wish.

Do not overfeed your birds before shipping. If you are going to ship to a show where the birds are weighed in, see to it that they arrive at the show rooms with good appetites. The show management will see to it that they are properly fed before being weighed. Feed just what they will clean up and remove the rest. It doesn't pay to cram before shipping. When they arrive, they have no appetites, and are weighed in to poor advantage.

The male birds should be kept separate. Otherwise the two best ones are almost sure to get to fighting just before the show, and will thus be out of condition. If you must keep them together, be sure that your show bird is master of the coop. Otherwise he becomes cowed and will not show to good advantage.

If in doubt in regard to any points about your birds, consult some local authority who can tell you just which is the best bird.

MOLDY FEED BAD FOR HENS VARIETY FOR WINTER EGGS

Cause of Many Deaths Among Poultry, Particularly Among Young Chicks, Can Be Prevented.

Don't give poultry moldy feed. It causes aspergillosis and chickens afflicted with this are "lungers."

"Moldy feed and moldy litter in poultry houses are the cause of many deaths among poultry, and particularly among young chicks," says J. B. Hayes of the poultry department of the University of Wisconsin. These molds taken into the body of the fowl cause a disease known as aspergillosis which is as fatal as the name sounds. Among poultry men, the chicks affected with this trouble are commonly spoken of as "lungers."

The chick stands around in a drowsy manner and shows little desire to eat. The wings hang down, the breath is rapid, and white diarrhea is present. Indeed, the disease is many times mistaken for white diarrhea. Older birds, when attacked, are inactive and sleepy. If forced to run, they will fall from exhaustion. The breathing is rapid, the appetite is diminished and more or less catarrh is present.

An affected chick will be found to have soft yellow growths from the size of a pinhead to that of a pea, mainly in the lungs but sometimes in the intestines and mesentery. These growths clog the air passages of the lungs and so cause the death of the birds. In mature fowls there are two forms of the disease. The membranes lining the air sacs and tubes may be covered with a membranous formation which is soft and yellowish and has an offensive odor. Or there may be white or yellowish nodules imbedded in the tissues of the lungs. In either case the disease is incurable.

But since it is caused by moldy feed or moldy litter it can be entirely prevented by cleaning up the poultry house once in a while and keeping moldy feed and litter away from the flock. This is only one of the many poultry troubles that can be avoided by clean feed and clean pens and yards.

Indication of Fowl's Health.

The condition of the bowels is the best indication of the fowl's health. When the droppings are more or less hard, of a dark brown color, capped with white, we know the fowl is enjoying the best of health. But when they are watery and yellow, indigestion, if not liver trouble, is the cause.

Persistence Makes Success.

Those who become discouraged at a few failures will seldom succeed with poultry. Failures are often met in any line, and poultry is no exception to this rule. It takes persistence to make a success at anything.

Best Results Secured From Laying Fowls by Using Ground Food, Meat and Green Stuff.

Variety of feed is what makes the winter eggs. Corn three times a day as a rule builds up fatty tissue, makes hens lazy and reduces profit.

"Animal food, ground food and a generous supply of green stuff produce the best results for laying fowls," says J. G. Halpin, head of the poultry department of the University of Wisconsin.

The exercise so needful for poultry can be provided in winter by working the grain ration well into the litter of fresh straw that should be provided as a carpet on the feeding floors. A good variety of grain should be provided: some corn, wheat, oats and barley mixed together, or fed alternately, makes a satisfactory ration.

A grain ration for winter use that has given good results at the experiment station farm consists of two parts corn, two parts wheat, one part oats and one part barley.

It is recommended that the ground feed be placed in a small mash box or trough where the hen can have ready access to it. The following mixture of ground feeds is considered to be quite satisfactory: One hundred pounds bran, 100 pounds middlings, 100 pounds ground corn, 50 pounds malt sprouts, 50 pounds meat scraps and sufficient salt.

Green Bone for Fowls.

Green bone can be fed advantageously to fowls intended for different purposes and kept under different conditions. It is a great help in hastening the growth of young birds, but the greatest help of this food to the average poultry raiser is in feeding it during the winter months to supply animal food. When fed to laying hens the yield will be increased wonderfully, and the poultry raiser will be well paid for the labor expended in cutting. It is a food which all fowls eat readily, and one that must be fed judiciously.

Care of Details Important.

As a rule it is the taking care of the little things that goes furthest toward making a success of any business.

This is especially true in the poultry business. Until one masters this feature of the work he cannot hope to be a real success. This is one reason why many women are really successful in the raising of chickens. They have the inborn faculty for detail in their work.

Increase the Meat Ration.

Remember, in cold weather to increase the meat ration, as the hens need it to keep up the heat for the body.