

CARE IN HATCHING EGGS ESSENTIAL



Artificial Brooding of Chicks, Showing Arrangement of Outdoor Brooders.

(Prepared by the United States Department of Agriculture.)

When it is noted that a hen sits on the nest for two or three nights in succession, she is ready to be transferred to a nest, which should be prepared for her beforehand. This nest should be in a box and composed of straw, hay, or chaff for nesting material. Dust the hen thoroughly with insect powder each week while setting. In applying the powder hold the hen by the feet, head down, working the powder well into the feathers, giving special attention to regions around the vent and under the wings. The powder should also be sprinkled in the nest. The nest should be in some quiet, out-of-the-way place on the farm, where the setting hen will not be disturbed. Move her from the regular laying nest at night. Put a china egg or two in the nest when she is set and place a board over the opening so that she cannot get off. Toward evening of the second day leave some feed and water and let the hen come off the nest when she is ready. Should she return to the nest after feeding, remove the china egg or eggs, and put under those that are to be incubated. In cool weather it is best to put not more than ten eggs under a hen, while later in the spring one can put twelve



Dusting Hen With Insect Powder Before Setting, to Kill Vermin.

to fifteen, according to the size of the hen. If eggs become broken while the hen is setting, replace the nest with new, clean material and wash the eggs in lukewarm water so as to remove all broken egg material from them.

Many eggs that are laid are infertile. For this reason it is advisable to set several hens at the same time. After the eggs have been under the hen for seven days they should be tested as to whether they are fertile or infertile. Infertile eggs should be removed and used at home in cooking or for omelets, and the fertile eggs should be put back under the hen. In this way it is often possible to put all the eggs that three hens originally set to sit on under two hens and reset the other hen again. A good homemade egg tester or candler can be made from a large shoe box or any box that is large enough to go over a lamp by removing an end and cutting a hole a little larger than the size of a quarter in the bottom of the box, so that when it is set over a common kerosene lamp the hole in the bottom will be opposite the blaze. A hole the size of a silver dollar should be cut in the top of the box to allow the heat to escape. An infertile egg, when held before the small hole with a lamp lighted inside the box, will look perfectly clear, the same as a fresh one, while the fertile egg will show a small dark spot, known as the embryo, with a mass of little blood veins extending in all directions if the embryo is living. The testing should be done in a dark room.

If the eggs hatch unevenly, those which are slow in hatching may be placed under other hens, as hens often get restless after a part of the chickens are out, allowing the remaining eggs to become cooled at the very time when steady heating is necessary. Hens should be fed as soon as possible after the eggs are hatched, as feeding tends to keep them quiet; other

Legal English.
The circumlocution of legal documents is the penalty of having a bilingual language and descends to us from these countries when the English and the Normans were slowly amalgamating into one people. So the two races, in the market place or in social converse, to make their meaning clearer, joined a French word to an English or vice versa. That is why in the prayer book words so often run in couples: "Humble and lowly," "acknowledge and confess," "assemble and meet together."

wise many hens remain on the nest and brood the chickens for at least twenty-four hours after the hatching is over. Chickens hatched during the winter should be brooded in a poultry house or shed, while the outside weather conditions are unfavorable; after the weather becomes settled, they should be reared in brood coops out of doors. Brood coops should be made so that they can be closed at night to keep out cats, rats, and other animals, and enough ventilation should be allowed so that the hen and chicks will have plenty of fresh air. Hens will successfully brood ten to fifteen chickens in the early breeding season, and eighteen to twenty-five in warm weather, depending upon the size of the hen.

The hen should be confined in the coop until the chicks are weaned, while the chickens are allowed free range after they are a few days old. When hens are allowed free range and have to forage for feed for themselves and chicks they often take them through wet grass, where the chicks may become chilled and die. Then, too, in most broods there are one or two chicks that are weaker than the others, and if the hen is allowed free range the weaker ones often get behind and out of hearing of the mother's cluck and call. In most cases this results in the loss and death of these chicks, due to becoming chilled. The loss in young chicks due to allowing the hen free range is undoubtedly large.

Chickens frequently have to be caught and put into their coops during sudden storms, as they are apt to huddle in some hole or corner where they get chilled or drowned. They must be kept growing constantly. If the best results are to be obtained, as they never entirely recover from checks in their growth even for a short period. Hens should be left with the chicks as long as they will brood them.

TIME TO INVEST IN MULES

War is Having as Great Influence on Industry as on Market for Meat Animals.

To the man who has feed, but who hesitates to invest in cattle or sheep, either because of the high initial cost or the uncertain prospects at selling time, may occur the idea of feeding young horses or mules. The war is having fully as great an influence on the horse and mule business as on the market for meat animals.

Seemingly, therefore, the present time is most propitious for buying young mules. They may be bought \$25 to \$35 lower than usual, and when they are three or four years old there is every reason to believe they can be sold for \$25 to \$50 a head more than in an ordinary year heretofore. Growing mules will have a greater value than usual during the next two or three years, in case owners want to borrow money on them.

In buying mule colts, it is advisable to buy females. The cotton trade pays \$15 to \$25 a head more for mare mules than for males, because they are better shaped and look more trim. Mare mule colts will cost \$5 or \$10 a head more than males. Railroad contractors and mine workers prefer male mules because they can stand more work, but the cotton trade preference for females overbalances this demand to the extent indicated.

Kansas and Missouri are the greatest surplus mule states. At the present time it is possible to buy any reasonable number of weaning mule colts within a radius of 100 miles, or less, of Kansas City, in a comparatively short time. Missouri possesses about 350,000 mules, Kansas something less than 300,000. Each of the cotton growing states has between 200,000 and 300,000 mules, Texas more than 500,000, but they raise comparatively few mules.

Raise All Your Feed.
While it may be better to use some milk feeds during the winter, profitable dairying can be carried on with farm raised feeds alone. The man who has plenty of alfalfa hay and good corn need not worry about not having the elements of a balanced ration. If in addition he has silage he can afford to forget about the mills and their products.

Save the Best Heifers.
Good cows are scarce. Save the best heifers and grow them into big, useful cows.

Value of Warm Barns.
Dairymen having warm barns and abundance of skim milk, can raise the fall and early winter calves with less trouble and with scarcely any expense as no feed will have to be bought and there is plenty of time to feed and care for the little fellows.

Feed for Dairy Cows.
Clover hay is a very good feed and cotton-seed hulls rather poor for dairy cows. Cotton-seed hulls can be used as a filler, but they do not furnish milk-making material.

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

TAKES NERVE TO THIN FRUIT

Practice Has Become Quite Popular With Some Orchardists—Expense of Time is Small Item.

(By W. H. McCURDY)
One of the most noted peach growers in this country tells how his neighbors wondered when they saw him picking of the major portion of his first peach crop.

They shook their heads and wondered at the absurd proceeding of the man who had peculiar views about peach growing. But that season when his peaches proved a bumper crop they changed their minds. Since that time the thinning of peaches has been popular with the more progressive neighbors.

The thinning of peaches or any fruit must be conducted with judgment. It is not by any means advisable to thin every tree regardless of how much fruit it carries. Some trees set so little fruit that all can be ripened without overtaxing the tree or without producing undersized fruit. Some charge up the cost of thinning as an extra expense on the orchard. But anyone who has gathered fruit knows that fruit gathering is a slow task, especially with fruit that has to be handled as carefully as does the peach.

The picking of the small, green peaches at thinning time removes the necessity of picking off many of these same peaches later on.

When they are thinned they are simply pinched off and allowed to fall on the ground, while later if allowed to ripen they must be put carefully in baskets.

The expense of time in pinching of a small fruit is only a fraction of that required in gathering the same peach when it is ripe enough to market.

Of course, there is an offset in the fact that some of the young peaches would be switched off by the wind later, but in the main it may be stated that no more labor is required to thin peaches and gather the remainder when ripe than to gather the harvest that results without thinning.

PRUNING FOR PEAR BLIGHT

Cut Out and Burn Every Particle of Diseased Wood—Do the Work While Trees Are Dormant.

To control pear blight cut out and burn every particle of blighted wood while the trees are dormant. Do the work thoroughly. A few branches overlooked may cause all the trouble again next year. The work may be done any time during winter or spring up to the time growth begins, but the best time is in fall while the foliage is still on the trees and the contrast strongest between blighted and healthy branches.

Make a weekly inspection of each



A Young Pear Tree Grown Where Pruning and Spraying is Practiced.

tree throughout the growing season and cut all blighted wood. Cut well below the infected area. Wipe the pruning knife or tool used after each branch is cut with a cloth saturated with some good disinfectant to prevent spreading the blight. Burn all wood removed and continue the work persistently.

Handling an Apple Crop.
In order to handle the apple crop the grower should be provided with picking ladders, picking baskets, a grading table, a barrel press and barrels for the apples.

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TIMELY HINTS OF SHEEPFOLD

Animals of Medium Grade Lack Condition and Quality Necessary to Bring Best Market Prices.

Why are pure-bred sheep the best for mutton? Because both lambs and sheep of the medium grade lack the condition and quality necessary to bring the best prices on the market.

Poorly bred sheep as a rule have long, loosely-coupled bodies with little spring of rib and rough outline, and are coarse and often paunchy. This class of animals is not desirable, and market buyers make the best of their bad points.

A good thing to remember when lambing time comes on: A lamb that is so badly chilled that it appears to be dead, may be revived by pouring down its throat a half pint of warm milk, into which a tablespoonful of gin has been poured. If there is no gin in the house, dip the lamb in a tubful of warm water, dry it off with a rough cloth and place it near the stove. Get some warm milk into its stomach, if possible, and in a few minutes it will be as frisky as ever.

A bunch of sheep will clean up the cornfield in which the stalks are left standing in fine shape. They strip off the blades and pick up every kernel of stray corn left on the ground.

The great loss of lambs is, in some instances, due almost entirely to the fact that the ewes are allowed to run down and become weak before weaning time.

The quality of the market lamb depends largely upon the first four weeks of its life. Given a good boost then, he will, with reasonably good care, prove very satisfactory at market time.

If sheepmen will take the pains to dip their sheep at least twice before the winter sets in they will save much loss from ticks and scab. This takes time and some trouble, of course, but it pays.

Many farmers have the idea that after sheep are shorn, the ticks will abandon them. Certainly they do to some extent, but they immediately go to the lambs, where they find a comfortable nest and make life a burden to the youngsters. Buy a dipping tank and dip regularly twice a year.

OVERSHOES FOR THE HORSES

Device Built Over Regular Shoe Prevents Animals From Slipping on Icy Pavements.

A recently patented shoe, designed to save horses on icy streets, consists of an overshoe built to fit over the regular shoe and is kept in place by leather straps which fit neatly around the upper edge of the hoof, says Popu-



Detachable Overshoe.

lar Mechanics. The overshoe has five large, sharp calks, the largest being in front. One calk on each side prevents skidding or side slipping, while one on each point holds the foot firmly on the pavement. It is made of malleable iron and adds but slightly to the weight of the foot.

WINTER RATION FOR SHEEP

Fine, Well-Bred Hay, Ensilage or Roots, With Grain is Excellent—Overcrowding Is Bad.

Feed is a great point in sheep growing. A good winter ration for mutton sheep consists of fine, well-bred hay, about four pounds of ensilage or roots, with a grain ration approximating the following: Two parts each of wheat bran, oats, corn, one part of oil meal, divided into two feeds a day. The prices for prime mutton are usually best in the winter, after the cull stuff is cleaned up, but the price generally stays on a profitable basis.

Sheep are nervous animals and of rather delicate constitutions, and suffer more from bad ventilation and overcrowding than any other animal on the farm. It is a mistake, therefore, to confine sheep during the winter in close quarters. If kept dry, their fleeces will keep them warm.

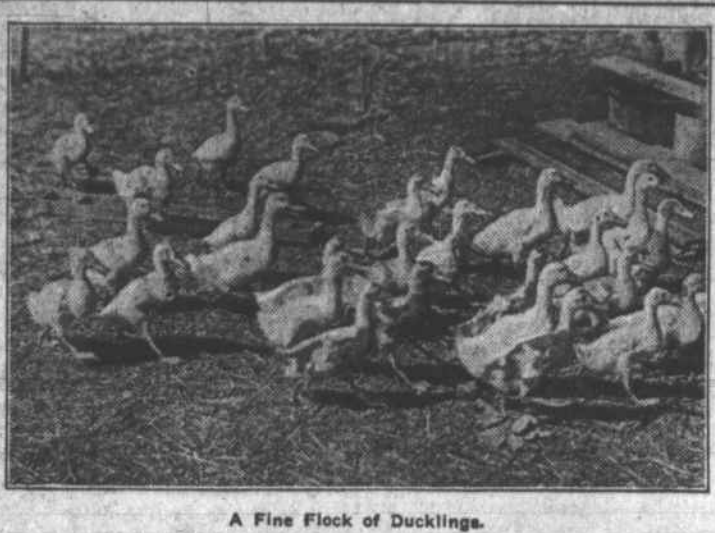
BREED ONLY THE BEST SOWS

Animals Showing Poor Feeding and Milking Qualities Should in All Cases Be Avoided.

It is of very great importance that you use for breeding purposes animals that are easy feeders and good sucklers. Sows in many lines of breeding show very poor feeding and milking qualities. The sow that can produce six pigs or more and bring them through to weaning time in good condition is much more valuable to you than the one that will produce that number of pigs and, on account of poor milking qualities, bring them to weaning time in poor condition. By all means avoid poor sucklers and hard feeders.

Keeping Too Many Hogs.
It is a common mistake with many to try to keep too many sows, or more than they can give proper attention to during the periods of pregnancy, birth and suckling. During all three periods they must be cared for correctly if good results are expected with the litters.

MOST PROFITABLE OF THE DUCK FAMILY



A Fine Flock of Ducklings.

(By ANNA GALIGHER)
It is only a few years since the Indian Runner first made its appearance in America. They came originally from the West Indies, where they have been raised for years, chiefly as egg producers. They derive their name from their native land and racy upright carriage.

In color they are fawn and white, with yellow shanks and light green bill; the latter being sometimes splashed with black. The body is long and narrow and is carried in an almost upright position. Neck is long and thin with finely formed head.

The Indian Runner is, we think, not only the most beautiful but also the most profitable of all the duck family. They have the Pekin beaten a mile, and are steadily gaining in favor.

The Indian Runner is rather small, fully matured ducks weighing from four to five pounds. Drakes from five to six pounds live weight.

But they grow very rapidly while young and are easy to raise. While they lack in weight is more than made up for in their other good qualities.

To begin with, they are very prolific layers, beginning when they are about six months old. Their eggs are pure white and a little larger than a Plymouth Rock hen.

They are superior in quality to any duck's eggs that we have ever eaten and as a rule they bring a better price in the markets.

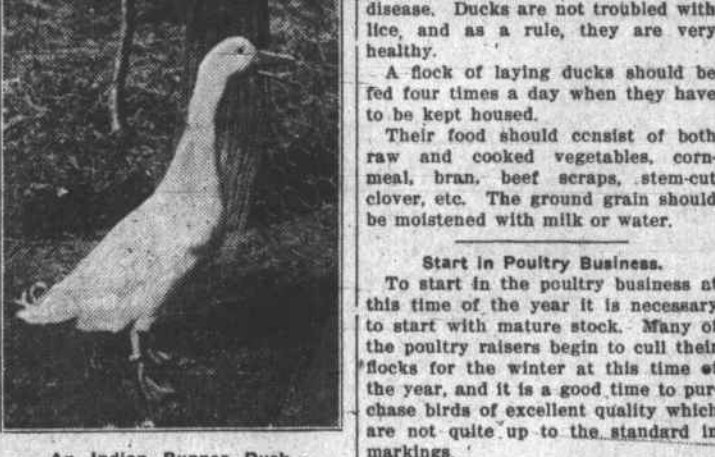
The ducklings reach a marketable size when about twelve weeks old; when forced they will weigh four to five pounds at two months.

The meat of a Runner is of superior quality: fine in grain, juicy and excellent in flavor. Hotels and restaurants pay fancy prices for ducklings.

The eggs are in good demand also. In winter when eggs are high the Indian Runner is "on the job." Any enterprising person can work up a trade among hotels and restaurants that should prove highly profitable.

There is no danger of strong competition, as comparatively few poultry raisers have taken up this branch of the industry, notwithstanding the fact that nearly all kinds of poultry products are bringing unheard of prices in the open market.

Duck culture, in the past, has been more or less neglected, owing to the general belief that ducks cannot be



An Indian Runner Duck.

successfully raised without a stream or pond of water. The fact is, however, that the Indian Runner requires only sufficient water to drink.

They are usually small feeders as compared with other ducks. One Pekin will consume as much feed as two Runners and then not be satisfied. Unlike the former they are great foragers.

In summer the Indian Runner, when given free range, will find the greater part of his living in the fields. But of course, when being fattened for

POULTS MUST BE KEPT DRY

Youngsters Require Good Care and Attention—Morning Dew Is Bad—Keep All Vermin Out.

(By R. G. WEATHERSTONE)
The young turkeys require a good deal of care and management on the part of the raiser to bring them through.

Keep them free of vermin. Do not coddle them too much, but try to keep them from getting out in the early morning dews, as they soon become fraggled.

Whenever possible drive them up when storms are approaching, as they do not stand much wetting.

It is an admirable plan to have a house or big hovel facing to the south and with a small inclosure of wire netting in front, say about ten feet square.

PROCESS OF STEWING

REGULATION OF HEAT IS THE MAIN CONSIDERATION.

On That Account It is Best to Use Gas, When Possible—Glazed Earthenware Jar Should Be Receptacle Employed.

Stewing is a method of food preparation that approaches the soup-making process. It is to some extent a proceeding that occupies a middle position between boiling and baking; the latter is often called roasting. In stewing, the cook's endeavor should be to extract from the meat its nutritive juices, and then to employ those juices, suitably treated, to finish cooking the remainder of the meat. For successful stewing, the most important point is the power of regulating the heat at which the operation is conducted. In order to stew successfully the heat must be absolutely under the cook's control. The up-to-date cook, therefore, prefers gas for stewing purposes on account of the perfect control that can be exercised over the temperature.

For successful stewing, meat should be divided into small portions for the easy extraction of the juices. Where bones exist, these should be broken into small pieces, and form an under layer in the stewing vessel. The meat and bones ought always to be placed in cold water and the water should cover everything in the pan or jar. The lid or cover should be carefully secured, and the temperature must be gradually raised to a steady heat, which must, of course, be below boiling. The extraction of the meat juices then proceeds, and when vegetables are to be added to the stew they are placed in the vessel at a later stage. Boiling and stewing are by no means the same process. The proper temperature for stewing is about 180 degrees Fahr. As almost everybody knows, the boiling point is 212 Fahr.

A glazed earthenware jar with a tight-fitting cover is most useful for stewing meat, or for making soups. If it has no cover, one should be constructed by fitting a plate or saucer on top of the jar and brown paper should then be tied over it. A jar with a cover saves this trouble, and, is, therefore, worth the extra expense. Earthenware or stone jars are very easily kept clean, and food does not spoil when left in them, as it may do if left in a metal pan. They can be placed on the top of the stove or in the oven when it is necessary to reheat the food contained in them, or if placed in a pan of boiling water the contents of the jar will cook slowly without attention from the cook. A meat stew can be served in the jar in which it has been cooked, if it is neither too large nor too high. It must, of course, be wiped dry and a napkin may be neatly folded around it. By this process the great advantage of a very hot dinner may be obtained in the coldest weather, even when the whole family does not reach the home at exactly the same hour, as a stone or earthenware jar, having been thoroughly heated, will retain the heat for some time.—American Cookery.

Lobster Cutlets.
Melt one teaspoonful of butter, add two tablespoonfuls of flour and cook thoroughly. Add one cupful of boiling water and cook until thick, stirring constantly. Add two cupfuls of chopped lobster meat. Season with salt, paprika, lemon juice and minced parsley. Take from the fire, add the beaten yolk of an egg and cool. Shape into cutlets, dip into egg and crumbs and fry in deep fat. Stick a lobster claw into the small end of each cutlet.

Bean Pot Roast.
Take one pound of beef, a cheap cut is just as good if it is free from veins. Cut in pieces about an inch square. Put in all the fat, too. Put in a bean pot, just cover with water and put in the oven. As water boils away add a little more. When about half done add a little salt. When ready to serve take from oven and put it in the spider. Thicken with a little flour mixed with water. The gravy is a rich brown.

Creamed Sardines.
Remove skin and bones from two boxes of sardines, then add four finely chopped hard-boiled eggs, five tablespoonfuls of bread crumbs, two tablespoonfuls of melted butter, one and one-fourth cupfuls of milk, one-half teaspoonful of salt, big dash of red pepper. Heat this mixture to a boiling point, then pour it over four slices of buttered toast.

For Cleaning Silver.
Precipitated chalk is excellent for cleaning tarnished silver. Place a little in a saucer and add just enough liquid ammonia to moisten it. Rub this lightly over the silver, and the stains will quickly disappear. Then wash in hot suds, dry carefully, and polish with a clean chamolite leather.

Raw Carrots.
Take nice, fresh, crisp carrots, scrape and put through a food chopper, using the coarse knife. To each pint of carrots add two tablespoonfuls melted butter, one teaspoonful sugar and salt to taste. Serve on lettuce leaves.

Mince Pie.
Line pie plate with rich crust, put in mince meat and cover with lattice work of crust. Just before serving, pour a little brandy over the top, light, and send to table while blazing.

Fig and Nut Salad.
Cook a few pulled figs and, when cold, slice in thin slices, add a few blanched and chopped almonds and dispose on leaves of lettuce. Serve with a cream dressing.

Fried Rice.
Pack well-cooked rice in a flat baking pan. When cold, cut into two-inch squares, dredge with flour and fry brown in drippings. Serve with a dash of paprika.

Demand for Charcoal.
The more heavily you are feeding, the more demand there is for charcoal. Make it an article of everyday diet.