

Miscellaneous.

New-Laid Eggs in Winter Time.

Now is the time to provide for the luxury of new-laid eggs next winter. If you would keep poultry at a profit you must save May chickens to lay eggs when they sell at a high price. A Brahma hen of my acquaintance, hatched in May, laid eighty eggs last winter in a hundred days, commencing October 16. A lot of pullets hatched May-day last year began laying October 15. Pullets will lay at six months old, or less, if well fed. It cannot be too widely known that winter laying can be only secured by keeping young hens.

The next point of importance is to allot comfortable quarters to your hens. The hen is exceedingly susceptible to the mischief of overcrowding. She likes a clean and well-ventilated apartment—not too hot, not too cold, and free from draughts of cold air. An excellent house for forty hens and four cocks measures inside 22 by 14 feet, by 8 feet high. The word "clean" must be taken in a special sense. Dirt, according to Lord Palmerston's definition, is "matter in the wrong place." Dry ashes, or sweet, wholesome lime, gravel, lumps of chalk, and old oyster shells would look dirty in a drawing-room, but they are appropriate in a fowl-house, where a "dust bath" is an institution as closely connected with cleanliness as a water bath is elsewhere. "Dirt" in a fowl-house means foul matter which may have been a long time accumulating, and which on only occasions an unwholesome stench, but forms the harbour of germs which may develop fatal diseases. The house, therefore, should be regularly swept, and then strewn with ashes, sand, chopped straw, burnt earth, or common mould sun-dried and stored for the purpose. There is no deodoriser so good and so well adapted for absorbing and neutralising any kind of foul matter as dry earth.

There should be in all poultry establishments a box or other store of dry earth, which should be collected in autumn at the time when the clods are baked by hot sun. It will prove invaluable for absorbing foul matter and rendering it inodorous and innocuous. And I may say of this, as of ashes or any other substance which may be employed for the dust bath or for scattering over the floor of the poultry house, that it should be collected when dry, or dried by artificial means.

The breed of fowl and the kind of food come next in order. The largest eggs are those of the Spanish and Houdan fowl, and they are alike—large, white, strong-shelled, and of excellent flavour. The latter are short-legged, plump, fine, and large fowls, as good for the table as for eggs, and the chickens grow rapidly. It is, perhaps, a matter of fancy to some extent, but most persons prefer eggs of several sizes, neither all large nor all small. The layers of large egg are not such good layers as some of the smaller sorts, such as the Leghorns, which are great layers of medium-sized eggs—the greatest of all layers, in fact, besides being particularly docile and easy to manage; their yellow skin is against them for the table.

As a rule, small breeds lay best. The best layers among the large breeds are the Brahmas. A cross between Brahmas and Leghorns makes a useful bird. The lively little Leghorn is essentially an egg-producing bird. It is small for the table, and its yellow legs are not in accordance with our rules of taste—or fancy, whichever it may be.

Plymouth Rocks are another sort excellent for laying, and strongly to be recommended as winter-layers, provided young birds are saved for that purpose.

The first cross between several sorts that can be named proves useful—as much so for egg-producing as the pure birds, and more so for table purposes when they are killed for that purpose, as winter layers should be, in their second autumn. It is a good plan to keep several sorts of pure hens in separate runs, so as always to have the materials for producing a useful cross. Some Cochins, Brahmas, and Plymouth Rocks, for example, may be kept to themselves, and capital crosses can be derived from them by using a Plymouth Rock cock, with hens of the other two breeds, or *vice versa*. It is not at all desirable to go beyond the first cross, and, by promiscuous intercourse, to breed "mongrels."

Having selected your breed, the next point is the feeding. Egg production has been described as hard work for hens, especially when they are great layers. "An egg," says an excellent authority, "is a potential chicken;" therefore it must contain all the elements of a chicken; its produc-

tion must be a drain upon the system which a large supply of food can only sustain. The hatching process adds nothing to the contents of the egg, but only develops the chick from the substance already there. Thus there must be in every egg the material for bones, flesh, blood, brain, nerves, feathers. Eggs, like milk, are perfect as food, and being so their production must be attended with the consumption of a large amount of food, which will, in fact, be proportionate to the number and weight of the eggs produced. In considering the sort of food proper to be given, it is obvious that if one sort of grain only be given, and that of a fattening kind—maize, for example—the hens cannot eat enough of it to supply the materials which her daily egg, or egg every other day, will require. And, in point of fact, hens fed exclusively on maize will fatten and grow lazy, and will cease to lay. This is a hint for others besides poultry feeders. I have known horses fatten on maize, and those who have eaten the oily and abominable bacon from the maize districts of America, have "enjoyed" a convincing proof of the quality of maize as a feeding article when used alone.

The diet must be varied. Hens are omnivorous. When allowed their liberty at the open period of the year, they find for themselves the variety of food that suits them—grubs, slugs, worms, seeds, corn, grass, and greens of all kinds, and oyster shells, or old mortar for strengthening the shells of their eggs. There is hardly anything they will not eat when ranging at will, and the safest and best way of feeding them in confinement is to imitate Nature, and supply them with the various substances which they require in the production of eggs. The outdoor food should be imitated indoors by using the cheapest articles that come to hand and that supply the same constituents—boiled greens and vegetables, offal of all sorts, and animal food from the house, or, if your numbers are very large, from the chandlers' and butchers' shops, and even from the "knackers;" but this kind of feeding on animal substance must be very moderately restored to. A mixture of maize, wheat, and oats may be given at daybreak and repeated at noon and night. The vegetables and odd bits may be given between these meals. There should be pure water at hand, and sour milk with a little bran mixed in it is good wholesome meat and drink. A little cayenne pepper in very cold weather has been recommended, but I rely on good sound feeding, without finding the necessity of such condiments. Plenty of corn and a little meat are the only rules for feeding which it is desirable to lay down. Hens are great eaters, and they must be fed without stint—not entirely, however, on corn of the more costly kinds, but partly on coarser food of a cheaper kind.

It is a good rule in feeding that a hungry hen will not be a laying hen. The same may be said of a fat hen. The food must be given regularly. Care should be taken to prevent it from being frozen, and I should have stated that the vegetables are best given hot, and that the mixed corn in winter should be scalded, with the addition of a little bran or pollard, and given warm. It should not be too wet—"sloppy." I have now endeavoured to mix details and general principles together in due proportion, so that by reasonable care in their digestion the reader may obtain abundance of new-laid eggs next winter.—[Sussex Poultry-keeper, in Agricultural Gazette.]

Food of Dairy Cows.

Rich old grass is the most natural and best of all cattle foods, for producing milk of good quality. It is a grave mistake, practiced by many intelligent farmers, to keep cows on poor, bare pasture, without any assistance in the way of house feeding. Many seem to imagine that land which has been tilled for years, without recuperation, until it has become useless for grain growing, is quite good enough for pastoral purposes, and therefore stint their cows of a proper quantity of nourishment. Nothing could be more short-sighted or unprofitable. It requires, in the first place, a large proportion of food to keep the animal in a strong healthy condition, and it is the surplus assimilated after making good the natural wastes, that goes to increase the animal, or for the production of milk. An animal of sound constitution, healthy digestion, and well developed lacteal organs, will prove a good milkier.

Those who wish proper returns from these cows should see that they are properly supplied with healthy food and plenty of good, pure water. The quality of milk varies with the different breeds of

cattle, their age, the food eaten, and at different periods of the year. The milk of old cows is much thinner than young ones of the same breed. It is astonishing the effect rich pasture or rich food has upon the quality as well as the quantity of the milk. Average milk contains, in 100 parts: Water, 87.00; albuminoids, 4.30; fats, 3.80; sugar, 4.28; and ash, 0.62. Normal milk, then, contains about 13 per cent. of solid matter, is made of nearly equal parts of albuminoids, fats, and sugar, with fully one-half per cent. of ash or mineral water, consisting chiefly of phosphate of lime and common salt.

Milk is, therefore, unusually rich in nitrogenous compounds and fat, and foods rich in these constituents are required for dairy cows. Animals grazed in poor, dry pastures, in which the albuminoids are deficient and the woody fibre is in excess, will well repay an outlay for a tificial food, such as bran-mash, or nourishing meal of any kind.—[American Dairyman.]

Founder in Horses.

Founder, a disease that is far too common in horses, is caused most frequently by driving or working the animal till it is overheated and more or less exhausted, and then allowing him to cool off suddenly without rubbing dry. A horse is driven hard for several miles, and then hitched to a post in the open air, in cold weather and perhaps forgotten by the driver, who may be telling stories or smoking a cigar by a warm fire. The next morning if not sooner, it is noticed that the animal has not eaten well, and can scarcely move from the stall. The lameness may be chiefly in one limb, or in more than one.

The first thing to do is to place the horse's feet in tubs of warm water, then blanket heavily, and get the animal thoroughly warm all over. The lameness is caused by a stagnation of the blood in the feet, caused by being cooled too rapidly after exhausting labor. The warm water thins the blood, extends and softens the blood vessels, and favors increased circulation. In very bad cases, bleeding in the foot may be necessary, though ordinarily it may be dispensed with.

Knowing the cause of founder, it will be seen that it is much easier to prevent than to cure this disease after it becomes established. In the first place, avoid very severe driving and over exhaustion, but if abuse of this kind is unavoidable, see to it that the horse who has risked his life in the service of his master is not neglected at the end of his journey. Drive into a warm shed or barn, free from cold draughts, and rub vigorously till the animal is dried off. Give warm water to drink, and cover with warm blankets. In short, treat the horse just as you would treat yourself under like circumstances.

Cider for Bottling.

The juice of the apple as it comes from the press should be filtered through straw, then put into barrels, carried into the cellar and placed upon blocks or skids with the bungs up. Next remove the bungs, filling the barrels full with pure apple juice. Fermentation will soon take place, and any impure matter or pomace will work out at the bung hole. As this works out add more apple juice to keep the barrel continually full, otherwise the impurities in place of working out of the top of the barrel will rise against the top of the barrel and remain there. In order that this be effectually done, it must be looked after every day, and all feculent and frothy matter removed. When effervescence ceases and no more matter arises the bungs may be driven in tight. In a few days provide clean barrels, into the bung holes of which insert a strip of clean cotton cloth about an inch and a half wide and about ten inches long, six inches of which has been dipped in melted roll brimstone, set on fire, driving up the bungs of the empty barrels tight, leaving the end of the cloth on which there is no brimstone out of the hole, so that the bung will hold it tight. Next remove the bung from the empty barrel and draw off the cider from the full barrel into it, being careful not to allow any sediment to come off. Finally, bung up this barrel, letting it remain undisturbed a few weeks, when the cider may be bottled at leisure. There are numerous methods of adding sugar, i-inglass and other substances to facilitate the preparation of cider for bottling, but the natural process, as above described, answers a good purpose.

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