

when they are "shooting the red." This is not to be wondered at, when it is remembered that they are generally put on whole grain, without milk, long before they arrive at that age, and suffer accordingly. Another point of the highest importance in feeding turkeys, or young birds of any kind, is the hour at which they get their first repast. In summer it is daylight at four o'clock in the morning. If the birds have their first meal deferred until six or seven o'clock, they have been hungry for two or three hours, and suffer very much. To be successful in rearing these, and any other young birds, they must either be supplied over-night with their first meal, or the poultry-maid must be up with the lark. There is no better plan than putting the hen and chicks, for the first month or two, in a closely-wired aviary at night, which is open to the early sun; and lettuce and a good supply of soft food can be put under a coop, so that the hen cannot eat it, and there will be but little left an hour after daybreak.

#### DUCKS.

Ducks are, under certain conditions, amongst the most profitable of farm stock. Aylesbury and its immediate neighbourhood is said to receive upwards of £20,000 yearly for ducklings sent to the London market. The usual mode of managing ducks in country districts is as erroneous as it is possible to conceive. The breed of ducks is usually small, and the broods are not killed until they are six or seven months old. For market purposes there is no breed so profitable as the large white Aylesbury variety. These, if well fed, begin to lay about Christmas, and the eggs should at once be placed under hens; for this purpose Cochins or Brahmas answer admirably. It need not be insisted on that abundance of food must be supplied to produce eggs in winter. The only mode of feeding ducks satisfactorily is to put the corn in water: a shallow feeding-trough or other vessel should be provided, and the oats be placed in sufficient water to cover them. This mode of feeding avoids all waste, as every grain is taken out of the water by the birds, and none is trampled under foot. As ducks usually lay at night, the brood stock should be shut up till morning, and the eggs at once removed, and as soon as practicable placed under hens. The young hatch on the 28th day, when they should, if the weather is at all cold, be placed in a warm shed with the hen; or if several broods are hatched at the same time, and the shed be a warm one, they may all be given to one hen. At first they should be fed on oatmeal and milk; afterwards oats may be given them in water; but if required to fatten and mature rapidly, the Aylesbury rearers feed them almost entirely on meal, boiled with a small proportion of greaves; but the flavour is not as delicate as that of corn-fed birds. If duly cared for, young ducklings should be perfectly feathered, fat, and quite fit for the market in less than two months, and the spring birds often produce six or seven shillings each in the London markets. The ducklings so forced are never allowed access to water, but are kept eating and growing during the whole of their short

lives. After ten or twelve weeks a duckling is only kept to waste, as it then begins to moult its first feathers, becomes poor, and does not gain in weight. Of course the profit on ducks is to be made only by sending them to market at the proper time—namely, when 8 to 10 weeks old. If they are kept till they are 7 or 8 months old, they are inferior for table purposes, cost more to produce, and yield less to the producer. It is no wonder that, under these circumstances, people say "ducks don't pay."

#### GEESSE.

Geese can only be profitably kept where there is abundance of grazing ground, as they derive the greater part of their nourishment from grass. Under suitable conditions no birds can be more profitable, but under other circumstances they cannot be recommended. Of the three varieties, namely, the pure white or Embden, they grey or Toulouse, and the common saddle-back, the former are to be preferred, as the birds pluck much better and clearer than the common parti-coloured breed. The management of these birds in suitable localities is attended with very little trouble. In the early part of the year the old geese should be well fed with oats thrown into water, so as to stimulate them to early laying in February, if possible. When she has laid from eight to fifteen eggs, the goose remains on the nest, and her eggs may then be given to her. When hatched, the goslings require grass, meal slaked with water, or porridge made with oatmeal. After a few days, oats, in water, may be given, and with the food they find by grazing the young will do well until fattening time, when they should be fed on oats, in water. In many parts the geese are partially plucked two or three times a year for the sake of the feathers. Nothing can be more injurious than the practice; the small sum obtained for the plumage is much less than the deterioration in the value of the bird. In concluding these remarks upon poultry as profitable farm stock, I would impress on the agriculturist the necessity of commencing with really good stock. On many a farm where nothing is to be seen but the most improved varieties of cattle, sheep, and pigs, there may be observed a number of the most wretched fowls and small worthless ducks and geese, that are hardly worth the food they have consumed. Nothing can be done in the way of profit with such stock. Really good large breeds must be procured, but it must also be remembered that this alone will not do; they must be well fed and well housed, and even these two conditions will be of no avail unless the birds are well tended, and the young stock more especially never allowed to be checked in their growth by hunger. Good breed, good feeding, and good attendance, are the three golden requisites to profitable poultry-keeping.—W. B. TEGETMEIER, in *Mark Lane Express*.

#### Moulting Fowls.

The moulting season is the most critical period of the year for old fowls; and yet in ninety-nine cases out of a hundred there is less care taken than in the spring, when everything is in their favour. The idea seems to be, that now the young stock is out

of harm's way, they can all shift for themselves; and until cold weather sets in, they are left to get fat (?) on what they can find lying around loose.

Some have much more difficulty in moulting than others. Spanish are a long time naked. All the non-setters feather more slowly than the others. It may be because they lay a greater number of eggs, and that the production of them causes more exhaustion of the system, than the twenty-one days of the setters. Certain it is, however, that moulting is an effort, and taxes the bird so much, that at such a time any old weakness, or partially cured disease, is sure to show itself again. Thus where roup has existed in a poultry yard, it always re-appears at moulting time.

Perhaps many readers have never considered the great drain upon the system of the fowl during this change of covering. Not only do the regular flesh-forming, life-giving processes of nature have to be fulfilled, but an entire new coat of feathers has also to be manufactured. These feathers consist not of flesh and blood alone, but of component parts of animal and mineral substances. These substances are assimilated from the food, and unless birds can obtain such food as contain the necessary qualities, the work drags, is prolonged, and the poor fowl droops and grows thinner in the vain endeavour to fulfil nature's requirements, without the proper means to work with. I doubt if one person in ten—yes, twenty—has ever given this a thought, and yet it is of the utmost importance to thorough and complete success in raising first-class stock.

Birds that have their full liberty and are well fed, always moult well; but when they are kept in confinement, care and precaution are generally necessary. The effects of food may be proved by a fact. Quails are exceedingly fond of hemp seed. This is of a very heating nature, and if they are allowed to eat too much of it, their plumage becomes nearly black. If they are fed entirely on it, their bodies are so heated that everything is dried up, and no nourishment is possible. The feathers, like plants, die for the lack of moisture. If proper food has this effect, then judicious feeding ought to assist; when birds are moulting, they must have plenty of cooling food, and there is none so good as lettuce; if it has gone to seed and stalking, so much the better. Sods of growing grass, and plenty of fresh earth with them, are also excellent.

A little treatment of this kind not only benefits the health of the fowl, but shortens the period of moulting one-third. In addition to that, the growth of feathers is stronger and heavier, and the fowls are thus better able to stand the cold winter. The appearance of the fowl is also vastly better, the feathers are lustrous, and appear as if oiled; the bird takes on fat at once, and meets the cold weather with a vigorous health and strength which otherwise it might not have.