

desirable features and indicates what in his opinion are the best methods of effecting improvement.

The policy of the government is to encourage the importation of animals of the highest class, the object being the adaptation of foreign breeds to our special conditions and by fusing the imported with the native blood to ultimately become independent of foreign breeders. That there is a necessity for the establishment of the breeds of horses in this country, especially the draft breeds, no one who is acquainted with the conditions can doubt. Mr. Rommel expresses the belief that a splendid opportunity exists here for the constructive breeder, the man who will apply ability, perseverance and courage to the problem.

Baby beef, which represents the earliest possible maturity of the bovine animal, has been brought to a high state of excellence by the American breeder and has now become firmly established in our live-stock markets. Baby beef is defined in the article on this subject by E. G. Ritzman as "a prime butcher's beast, thoroughly fattened and ripe for the block at from twelve to twenty-four months of age. Growth has been artificially promoted by continuous heavy feeding from birth, with the object of obtaining in the shortest time possible the maximum amount of well-matured beef." Five years ago, and even more recently, a prime steer up to twenty-four months of age was classed as baby beef, while today it is questionable whether an animal over eighteen months of age should be considered as such.

The flesh of young cattle has not developed that coarseness of grain and fiber characteristic of the flesh of old animals, and is therefore more tender and delicate. The proportion of fat to lean is smaller, and the fat does not accumulate in such large deposits or lumps between the layers of muscle, but is more evenly distributed in flakes between the muscle fibers.

The paper discusses the characteristics of baby beef, the economy and greater profit in its production as compared with older cattle, the breeds and types best suited for producing it, and methods of feeding. Some of the principal advantages derived from the production of baby beef as compared with older beef are stated as the quick return on the investment, the greater demand for the product, and the greater amount of meat produced per pound of feed consumed.

The article on poultry management, which deals entirely with chickens, is practical in character. "It is so easy to figure one's self getting rich raising poultry," writes the author, G. Arthur Eell, assistant animal husbandman of the bureau, "that a great many people with but little knowledge and experience have embarked in the business on a large scale, only to meet with disastrous failure. They have neglected to recognize the fact that

this industry, like any other, requires a thorough training and an aptitude for the occupation. That there is good money in poultry, however, when properly managed, is shown by the many successful poultrymen who are making a good living from the industry."

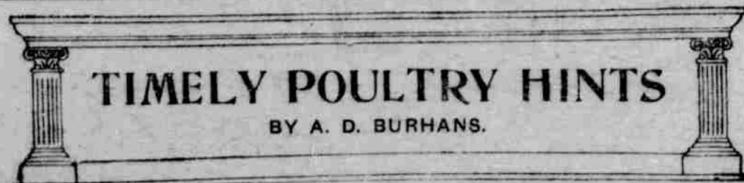
The reader is given some sound advice as to how to make a start in the poultry business. Then comes a classification of the breeds, showing which are best purely for egg production, which for meat, and which for a combination of eggs and meat. Full details are given concerning the arrangement and management of poultry yards and the location and construction of houses, nests, coops, etc. There is a chapter on "how to feed for the most profitable egg production," and the raising of chickens both with and without incubators is dealt with in a thorough manner. Other subjects treated are how to produce broilers, roasters, and capons, how to fatten poultry, how to prepare and ship the products to market, and how to test and preserve eggs. Finally there is a chapter enumerating the principal diseases of poultry and giving directions for treating them.

In all respects the effort has been made to bring the discussion of methods and appliances down to date, including such subjects as dry feeding, curtain-front houses, colony houses, etc. The buildings and methods of some of the most successful and best equipped poultry farms in the country are described, and the article has 17 illustrations showing houses and appliances.

LITTLE PROSPECT FOR FRUIT

J. M. Russell, the nursery man, said that the damage done to the fruit crop Tuesday evening was greater than at any time this season. Some of the blossoms are not open as far as others and in consequence suffer less from the cold weather. The prospects for a fruit crop of any size are considered poor. The apple crop, according to E. T. Hartley, is the only one which is not affected by the cold. The apple blossoms are not well out as yet. The grapes will be as numerous as ever and the berries and some of the other small fruits have not been injured to any noticeable extent. Every day of the cold weather weakens the fruit trees, as the blossoms are in a susceptible stage when the afternoon sun makes them come out and the cold weather kills them in the evening.

E. F. Stephens of Crete estimates the peach crop at only about 20 per cent of a full yield since the recent severe frosts. He estimates the cherry crop at 30 per cent, grapes 85 per cent and all other small fruits a full crop. This is an off year in apples regardless of the freeze, as the trees bore heavily last season.



TIMELY POULTRY HINTS

BY A. D. BURHANS.

Providing Turkey Nests.

Every farmer's wife has noticed how the turkey hen loves to hide her nest in the hedge row or orchard. Often they will go into the hay field when they commence to lay their first clutch of eggs in May and seclude themselves so quickly that one cannot possibly find them. If you will use barrels and boxes with good roony nests and some nest eggs in them, covering over the whole a sufficient amount of brush to make it appear secluded, the turkey hen will use them if they are not too close to the house and any one of the barn-yard buildings. In a far corner of the orchard is a good place to put the nest for the turkeys, or if there is a row of bushes somewhere about the place and not too far from the house try to make a nest there. Turkeys will soon find any nest that you make for them and use them if not scared away or given a fright when approached. Remove all turkey eggs except the nest eggs daily. Let chicken hens do the hatching and remember that dampness of the young poult is the greatest trouble that confronts all turkey growers. A domestic hen will cover four or five turkey eggs very nicely and if she is kind and motherly she will raise all of the poult. Do not fail to give her a dry brood coop where plenty of sunlight can get in on the brood every morning. Provide plenty of fresh water, a variety of feeds and keep the youngsters penned up for a week or two until they can run about and protect themselves a bit.

Cost of Maintenance.

The idea has been prevalent for a long time that hens could be kept successfully from one year's end to the other for the small sum of \$1 per year per hen. In this day of high priced feeds it is impossible for a poultry

grower who has to buy any considerable amount of grain feeds to keep fowls at \$1 per year each. A farmer who is keeping a flock of Leghorns or some other breed, or grades of the general purpose fowls, may be able if his range is large enough to keep his fowls at a cost of \$1 each per year, but the range would have to be extra good in order to do this and the flock would have to be on it all the time. He could not yard the flock and feed it heavily of grains at present prices for \$1 per hen per year. It will run up now closer to \$1.20 or \$1.50 than to \$1 and it will exceed these figures on the large poultry farms where hens are kept for eggs exclusively and where all feed has to be purchased except the forage grown in the runs connected with the laying houses.

Spring Colds.

It is a bad plan to neglect any colds which the various fowls of the flock will contract in being exposed to the damp spring weather or from being forced to roost in draughty or poorly ventilated houses. Generally the conditions which surround the cause of a cold will be bad enough to bring on a severe case of roup unless remedied. If the real, old-fashioned roup once gets into the flock it is a hard thing to eradicate and cannot be subdued with any degree of surety at any time. A few drops of kerosene in the drinking water will often prevent a spreading of contagious colds in the flock and will do much to cure the affected fowls. One of the surest means of bringing about roup on the birds that have cold is to allow the droppings boards to become foul with damp droppings and then let them roost over the filth.

Leg Weakness in Chicks.

From this time on there will be more

or less call for cures for leg weakness among young chicks. We have found that leg weakness is more prevalent in the chicks that are early hatched and what might be called over-grown than among the smaller birds and those hatched later in the season. Very often the whole flock will be affected, generally the cockerels having most of the trouble. After they get about four months of age they begin to sit around all day refusing to get out and hustle on the range. They walk as much as they can but the worst thing about the disease is that it keeps them from foraging until the trouble disappears. The larger birds such as the Brahmas, Langshans or Cochins are more affected than the Plymouth Rocks, or Wyandottes although the lighter fowls have their share of leg weakness. Too great an amount of fattening food which is generally fed with the idea of increasing weight of body beyond the ability of the legs to carry same has often much to do with cases of leg weakness. The best scheme is to feed so as to prevent it. Remove the cause of the trouble if you think it is over-feeding that does it and give the chicks but little grain of a fattening nature. We have never had any trouble with leg weakness where ground oats were liberally fed in the mash feed and where hulled oats were given daily when the youngsters were feathering or until they were about three months of age. There is nothing like good oats as a bone and muscle forming food. Leg weakness among the chicks does not bring with it the total loss of appetite, very often on the contrary it affecting them in the opposite direction, they being more voracious than ever.

Do Not Cross Breeds.

The only cross breeding of poultry that pays is crossing a pure-bred male or the ordinary barn-yard females. To cross pure-bred chickens is follow. If for instance, you are breeding Plymouth Rocks and you seek to improve their laying qualities in crossing them with the Minorcas, it will be an important job poorly begun. You had best go to a breeder of Plymouth Rocks who is making a specialty in his flock for the egg production and secure enough birds to infuse new blood into your flock. Crossing pure-bred fowls detracts in the produce from the good qualifications of each of the parent varieties. This has been proven times without number. The idea that something especially good may be obtained by crossing is a delusion. The common impression is that crossing of breeds will show a marked increase in health and general vigor of the flock that results from it. There is some truth in this but there is no more truth in it than the truth that may be demonstrated by the addition of new blood in a pure-bred flock of fowls, said new blood coming from a healthy flock of pure-bred fowls of the same variety. Much attention must be given to keeping up the vitality in the average flock. There are any number of poultrymen who are devoting their time to the breeding up of heavy laying flocks and if it was not a success they would not be in the business. They find a good call for the majority of hearty stock that they can spare and this at good figures. Many poultry keepers under-

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stand that new blood must be added annually from heavy laying flocks of great stamina and they make a practice of buying every fall or spring something they need in the way of breeding males. The poultry keeper who uses judgment in the selection of his or her breeding birds every spring will not have trouble in keeping up the heartiness and health of their flock. This will increase the value of the season's chicks many times.

Jottings.

There are any number of different ways to break up broody hens. One of them is to shut the hen in a tight brood in a shady spot giving her nothing to live on for a week or so but fresh water. This reduces her considerably in flesh and takes away the setting fever and after a week or ten days' treatment she is over the idea. We know of one woman poultry raiser who has a brood coop about eighteen inches square and in the bottom of this she has a pan about one inch deep. She fills the pan with water and stands the hen in it for three or four days and says that this does not fail to break them. Her coop is large enough to put three or four hens in at one time. Generally broody hens that want to set are quite fleshy and carry more fat than they need for ordinary purposes. Setting is a fever. Every setting hen's temperature is a few degrees higher than that of the normal laying hen.

A Nebraska chicken woman says that she has used acconite in the drinking water to cure roup in the flock for a number of winters and has never lost very many fowls with colds but it should be remembered that the poultry houses and poultry quarters should be so regulated and constructed that colds and roup will not result from them.

The vice of egg eating is one that is prevalent at this time of the year in a good many flocks. It all comes because the hens are deprived of some certain feeds that they should have and because of being shut up during the bad weather of winter and early spring. One of the simplest ways to prevent eating in the flock is to lay a few china nest eggs around in the scratching litter where the hen will see them continually. Then if a fowl happens to lay on the floor or in the litter there will be no danger of the hens eating the eggs. One hen in the flock that has learned to eat eggs will teach it to the others. Have the nests up off the floor and more or less dark. Feed plenty of green bone and provide some green food in the mash or furnish alfalfa clippings or loft sweepings and this will help to keep the hens busy and provide a variety of food. A hen that is shut up in a small yard and house the whole winter through and fed nothing but corn three times a day is the one that learns to eat eggs, which often results in the scarcity of eggs during the winter when the care taker knows nothing about it.

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