

Increasing The Egg Yield by Selecting the Stock.

The Maine Experiment Station has for some time past given attention to the poultry industry and commenced investigations in breeding poultry to learn if the egg laying capacities of hens could be advanced and become a fixture in a family of birds. The aim was not to make a few phenomenal layers, but to increase the average yields of the stock for practical purposes. The work was begun eight years ago, by taking a stock of Barred Rocks that had been averaging about ten dozen eggs a year, per bird, and by the use of trap nests, selecting the hens that laid 160 or more eggs and breeding them the following year to the sons of other hens that had laid 200 or more eggs in a year.

During the seven years which have elapsed since the work was begun every generation of pullets has been subjected to rigid culling by trap nests and no bird with a record of less than 160 eggs has been bred. For the last two years the average egg yields of the flocks have been twelve dozen eggs per bird. While the increase of two dozen eggs per bird may in a measure be the results of improved methods of feeding and handling they feel very sure that it is chiefly due to the rigid exclusion of drone blood.

There is nothing new in the plan pursued. It is only breeding producers to the sons of producers, to get producers, and it has proven as true with the laying hen as it has with the dairy cow and trotting horse, and all other classes of improved animals.

The general use of the trap nests by small operators is not urged, because of the expense of equipping and operating. Anyone who is at all familiar with poultry can go among the pullets on the range in autumn and pick out the ones that are laying, or about doing so, and save them for the next year breeders. Twenty-five pullets picked out in this way from among a hundred in the station flock, averaged 180 eggs each in a year. While this method is not as good as trap nesting, it makes better breeding practical for the farmer.

Keep Charcoal in the Pens.

Charcoal is used to keep poultry and pigeons in a healthy, thriving condition, and this is done by the charcoal absorbing all the foul gases and sourness that may arise in the digestive organs, and preventing diarrhoea.

When the droppings are too soft is the time to guard against diarrhoea by giving more charcoal in the mash; then you will notice that the droppings harden and the bowels resume their natural and healthy condition. Poultry are frequently overfed (even by practical poultrymen) and in nine cases out of ten this will result in bowel disorder, which is guarded against in a measure by the use of charcoal. More little chicks die from diarrhoea than any other complaint; the use of charcoal is of assistance in rearing the little ones, and if kept before them constantly it will help them to reach maturity at an early age.

Charcoal is not a drug; it is a natural purifier from which no bad effects can result. Feed in the mash and in hoppers same as grit and shell.—*Farm Poultry.*

DAIRY

How to Make Devonshire Cream.

A leaflet by the British Board of Agriculture is clipped from the *Dairy World*, in which the art of making Devonshire cream is set forth, so that every dairy farmer may prepare the delicacy if he will. The writer remarks that Devonshire cream is strongly recommended by the medical profession as an excellent fatty food, and is displacing to some extent the use of cod-liver oil amongst invalids. Devonshire cream is very rich, containing from 50 per cent. to over 60 per cent. of fat, and this fat is of a more digestible kind than any other, being present in the cream in a finely emulsified condition. In the preparation of clotted cream, it is desirable to use rich milk, such as is produced from the Channel Island breeds of cattle; but this is not essential, and the evening's milk from Shorthorn cows will produce very good cream indeed. In Devon and Cornwall clotted cream is largely made from the milk of Devon cattle, which are admirably suited for the purpose. Crosses with Channel Island cattle are also commonly employed.

The cream is prepared as follows:

1. Whole milk, warm from the cow, is carefully strained into setting pans. The pans most suitable for the purpose hold about six quarts of milk, measuring fifteen inches across the top, seven inches in depth, and eleven inches across the bottom; they are, in fact, similar to shallow pans, only deeper.

2. The pans of milk are left undisturbed in a cool dairy for the cream to rise. In summer, twelve hours or less is the time allowed, but in winter twenty-four hours is usual.

3. The pans should now be carefully removed and scalded, great care being taken not to disturb the cream on the top of the milk. Scalding is carried out by placing the pans on a hot-water stove and allowing steam to play upon them until, in not less than half an hour's time, they have attained a temperature of 175 to 180 degrees F., when they are removed, and either allowed to cool naturally, or are cooled by placing them in a stream of cold running water. The scalding should not be done too quickly, otherwise the characteristic scald flavor is not produced. The heating may be carried out by placing the pans on a kitchen range or hob, but the hot-water method is preferable.

4. When cold, the cream may be taken off in a thick, clotted condition, and is ready for sale. In summer it is especially advisable to cool the pans as quickly as possible after scalding, as this insures extra keeping properties.

The cream is generally sold by the pound. One pound of cream may be obtained from one and one half gallons of Jersey milk, or less; whereas nearly two gallons of Shorthorn milk may be required to produce the same quantity of cream.

Salting and Working of Butter.

Objects of Salting.—The chief objects of salting are: (1) to impart a desirable flavor; (2) to increase the keeping quality of butter; and (3) to facilitate the removal of buttermilk.

The proper amount of salt to use in order to impart a desirable flavor depends chiefly upon the market. Some customers prefer a medium high salt content in butter; others again like butter which contains very little salt. The English market demands rather light-salted butter. In fact, this is the case with practically all European markets. American markets, as a rule, demand comparatively high-salted butter, as much as will properly dissolve in the butter. The salt-content of butter may vary between nothing and 4 per cent. Butter containing as much as 4 per cent. salt is, as a rule, too highly salted. When it contains this amount of salt, part of the salt is usually present in an undissolved condition. Those who like good butter prefer butter that contains the salt thoroughly dissolved and well distributed.

The amount of salt to be added should be based upon the least variable factor. Some creamerymen measure the amount of salt according to the amount of the cream in the churn. While the box-churn and Mason butterworker were being used, many makers preferred to weigh the butter as it was transferred from the churn to the worker. The method mostly in use now, and to be recommended, is to base the amount of salt upon the number of pounds of fat. The amount of salt to use per pound of fat varies, therefore, according to the conditions mentioned below, and also according to local conditions. Usually from half an ounce to one and a half ounces of salt per pound of butter-fat is most suitable. In whole-milk creameries the salt is often estimated per hundredweight or per thousand pounds of milk.

To get the butter salted uniformly from day to day is very important, as a small variation in the salt-content has a greater effect upon the quality of butter than has a small variation in any of the other butter constituents. A variation of 1 per cent. to 2 per cent. in the salt-content can very easily be detected by the consumer, while that much variation in any one of the other constituents could not be readily noticed.

The conditions upon which the proper amount of salt depend are: First, the amount and condition of moisture in the butter at the time the salt is added. If there is a great deal of loose moisture in the butter, more salt is necessary. This is due to the fact that the salt will go into solution in the water and be expressed during working. Secondly, it depends upon the amount of working the butter receives, and at what time the bulk of the working is done, after the salt has been added. If the butter is medium firm, moisture in the form of brine is being expressed during the working. Consequently the more butter is worked, up to a certain limit, the more brine is being expressed, and the more salt should be added to the butter. Thirdly, the amount of salt to add depends also upon the size of the butter granules at the time the salt is being added, and the hardness and the softness of the butter. If the granules are very small and quite hard, they take salt with difficulty. The salt attracts more moisture from these small granules than from larger ones, which will escape in the form of brine. If the butter is present in a rather soft, lumpy condition at the time the salt is added, and there is no water in the churn, consequently less salt is necessary in the first place.

It is undoubtedly due to these facts that the salt-content and the condition of salt in butter vary so much at the different creameries; they even vary considerably from one churning to another at the same creamery. If conditions are uniform in the creamery from day to day, the amount of salt to add to butter, and the amount of salt retained in the butter when finished, will be comparatively uniform.

It should be mentioned in this connection that butter made from very good cream should not be salted too heavily. Butter made from a rather poor quality of cream may be salted correspondingly heavier. This is due to the fact that the heavy salty taste covers some of the undesirable flavors in the butter. If the butter flavors are good, they should not be hidden by a heavy salty taste. If the butter flavors are poor, then it may be policy to partially cover them up with a medium-heavy salty flavor.

McKAY AND LARSEN

FIELD NOTES

Events of the Week.

BRITISH AND FOREIGN.

Lord Haliburton is dead. He was the son of the well-known Justice Haliburton of Nova Scotia, and Under-Secretary of War from 1895 to 1897.

King Edward's tour of the Mediterranean is likely to result in more friendly relations between Italy and Spain.

Mrs. Esther McNeil, founder and first president of the Women's Christian Temperance Union, died at her home in New York State.

According to the advice of Premier Laurier and General Botha the term "Imperial Council" will not be used in speaking of the Colonial Conference, as it would imply a body of an authoritative rather than an advisory nature.

Several thousand skilled workmen have been dismissed from the Woolwich arsenal as a result of the policy of reduction in military expenditure. They marched to the House to present their case.

The British delegates to the Peace Conference at the Hague in June are Sir Edward Fry, Sir Ernest Satow, Lord Reay and Sir Henry Howard, besides several naval and military experts.

CANADIAN.

The miners and operators of Canadian Western mines have not yet come to terms, though the prospects of a satisfactory settlement look brighter.

The by-law to raise \$250,000 in Calgary, Alta., to establish a municipal street railway passed by a vote of 466 to 148.

A gang of counterfeiters, who have been engaged in making and circulating worthless coins, have been broken up and one of the party arrested at Red Deer, Alta.

Pawnbrokers in Toronto were fined for charging interest on money loaned at the exorbitant rate of a hundred and twenty per cent.

A Dominion blue book recently issued from Ottawa places the number of wage earners in Canada at 814,930 of which 81.75 per cent are males.

Reports have come west that the Canadian Soo is free of ice and ready for navigation.

Endorses Cash System.

EDITOR FARMER'S ADVOCATE: I wish to endorse the article by "Farmer" in your issue of April 10th, on the cash system. As a business man I wish to say it is a curse to both the business man and the farmer, and the sooner it is cut out the better it will be for all parties, and the better value the farmer will get for his money. As it is now, a large number of people buy anything that is offered, because pay day is a long way off and they do not consider very much the quality of the goods or the reliability of the party who is behind them. The result is that the farmers of the West to-day are paying for a whole lot of "hot air," and paying a big price for it too, because of our credit system, with its long price and long time deals.

It may not always be wise for a man to wait till he has all the money to buy an outfit which costs from \$300.00 to \$3000.00, but he ought to have at least 50 per cent. of it, or wait a little longer. In justice to himself he ought not to buy any till he has half the price or more. It is these three, four and five years' payment schemes that make a man poor. I feel satisfied that if a united effort were made by both business man and farmer, in five years this long time credit business would be a thing of the past, and all parties concerned would be benefited.

H. CATER.