

tion of the Station herd during a corresponding period of lactation. The decrease in production from the Station herd amounts to less than ten per cent. as compared with forty per cent. for these herds which suffered the vicissitudes of dry pastures without any additional food, the explanation of this difference being that the Station herd is uniformly well-fed, and is supplied with silage and soiling crops during the entire year. The milk produced in August on dry pastures contained a higher per cent. of solids than during June, when the pastures were in first-class condition. The August milk was richer in butter-fat than the June milk, and no less rich in casein. It is urged that provision be made against the results of an insufficient supply of food from the pastures by using corn ensilage, alfalfa, and peas and oats, which, in the case of the 600 cows in the herds studied, he estimated would have increased the cheese product 42,000 pounds, thus securing five dollars more per cow.

Self-Sucking Cows.

A bulletin on the subject of self-sucking cows has been issued by the North Carolina Experiment Station. Two remedies are proposed: Boil a handful of quassia chips (can be got in drug store) for several hours in about one gallon of water. Wash the cow's teats in this after every milking for ten days. Always wash every time before milking, using a gallon of clean water in which a spoonful of Pearl-ine has been dissolved. If the milk tastes of quassia feed it to pigs. The bitterness of the quassia remains in the cow's memory and prevents further trials at sucking after the ten days. The other method consists in slitting the tongue near the point used to draw up round the teat in the act of sucking. Fasten the cow securely, and drawing out the tongue slit it a little to one side of the middle one and one-half to two inches out towards the front and near the point. Then feed on soft bran mash for a few days until the wound heals, and it will be impossible for the cow to suck after that. One correspondent tried chair frames and side bars until tired out and desperate, when the mutilated tongue cured the habit.

New York Show Dairy Test.

In our Sept. 1st. issue we gave the results of the famous Tring (Eng.) milking trials, and in Sept. 15th the records made at Toronto Industrial this year. By way of comparison these will be of interest, together with the following result of the Holstein-Friesian butter test at the late New York State Show:—

- The cows were milked clean at 6 p. m. Sept. 3, and were milked again Sept. 4 at 6 a. m. and at 6 p. m. The results of the tests are:
1. Egis 10th 4941, 50 lb. 15 oz. milk; 3.4 per cent. fat; total fat 1.73 lb.
 2. Clothilde 4th's Netherland 16528, 35 lb. 2 oz. milk; 3.4 per cent. fat; total fat 1.20 lb.
 3. Netherland Monk's Aaggie Constance 20556, 30 lb. 12 oz. milk; 3.75 per cent. fat; total fat 1.15 lb.

POULTRY.

Chicken Cholera.

BY J. E. MEYER, WATERLOO CO., ONT.

Perhaps no disease that visits the poultry yard is more destructive or harder to contend with than cholera. Once it gets well into a flock it kills off very rapidly. The birds will go to roost at night looking quite healthy, and in the morning will be found dead. The symptoms are: The fowl becomes dumpy, turns pale about the head, comb becomes black, droppings are yellow or greenish-yellow. The victim dies very suddenly, and many times you will find them dead before you notice them being sick. The sudden death without appearing sick is peculiar to cholera, and distinguishes it from simple diarrhoea. In diarrhoea the face becomes pale, the comb black, and the droppings much the same color, but instead of dying suddenly, the victim generally lingers for a time. Diarrhoea confines itself to only a few members of a flock at most, unless there is a strong cause, as drinking filthy water, eating filthy food, etc.

In all infectious diseases the sick fowl should be at once removed, and the quarters thoroughly disinfected. Clean the house thoroughly. White-wash thoroughly, using a good quantity of sulphuric acid in the whitewash, and sprinkle the floor with water, to which add one ounce of sulphuric acid to each gallon. Put a very little sulphuric acid in the drinking-water. See that there is no stagnant water for the fowls to drink. All birds that show unmistakable signs of being affected had better be killed and buried or burned, and the rest put into the clean house.

We shall give several remedies that are recommended, but in using them one should remember that they will do much more towards eradicating the disease from the birds very slightly affected, or as a preventive in case of birds not at all affected, than towards curing very bad cases. It is almost useless to attempt to cure a bird that has become so bad that it refuses food and drink.

Take equal parts of sulphate of iron, capsicum, saltpetre, alum, sulphur, fenugreek, and resin. Dose.—To every six fowls, one tablespoonful mixed in the soft food once a day while the disease is worst, two or three times a week as it decreases, and finally stop when all danger is past. Another cheap and said to be a sure cure is: Make a strong tea of white oak bark boiled in water for one hour.

Pour off the liquid into an earthen jar, and to every gallon of the drinking-water add a pint of this liquid. This can be used instead of the sulphuric acid in the drinking-water, or it may be used to moisten the soft food in which you put the tablespoonful of the first recipe.

The Moulting Season.

Mr. J. E. Meyer, a successful poultryman, and one of our contributors in our Sept. 1st. issue, gave some useful hints on the above subject. An English exchange, *Poultry*, deals with the subject as follows: "In order that poultry may moult healthily and throw a good coat of feathers, they should have a large supply of animal matter and an abundance of green food. The green vegetable is valuable for its cooling and aperient properties, and animal matter, such as insect food, meat, and soft, spongy bone, supplies material for the formation of feathers. The only safe way of hastening a moult and shortening the period of its duration is by feeding freely with meat, and at the same time keeping the birds in a rather warm place. The increased temperature induced by incubation may hasten a pending moult, therefore hens may be set on eggs or dummies for the purpose of bringing on a moult. When the moulting season arrives, male birds should be separated from the females, because if the male, through moulting or other cause, becomes inattentive, some of the hens may lecherously commence pulling and eating the cock's feathers. Young cocks will allow the hens to strip them of feathers, and as a consequence the vice of feather-eating may be set up. Besides, if the males are separated from the females and kept apart until the next breeding season, it will allow them to become more vigorous by the early part of the year, and allow the plumage of the females to keep in better condition through the winter."

Fattening Ducklings.

Ducks killed off and sold at from eight weeks to three months old, for about three weeks before being killed should have a special course of feeding. "During these three weeks it is best to keep them in," says an English writer, "and have a small wire pen at the end of their sleeping-shed for feeding and for a water trough. This trough should be about 9 in. deep, 1 ft. 6 in. to 2 ft. wide, and from 3 ft. to 4 ft. long, according to the number of ducklings being fattened off. The trough should be sunk in the ground to within 3 in. of the level of the surrounding ground, and should be cleaned out and refilled with fresh water every morning. There is a good deal of difference of opinion on the subject of fattening ducklings, but boiled rice, oatmeal, and fat or suet mixed, is one of the best foods for fattening them; in fact, they have been fattened off in a fortnight on this mixture, whereas in many cases with cheaper feeding it takes three weeks and sometimes longer."

Goose Fattening in France.

A Paris paper recently gave some details concerning the methods employed by the geese fatteners there. Most of the Paris market people refuse to disclose anything about their methods, saying that they are secret. However, Madame Arnould told the interviewer: "We have our fattening sheds, which are kept cool in summer and warm in winter. The geese are fed at their first and second meals with a sort of pap or gruel made of barley meal and water. At their third meal they are given the same, only milk is substituted for water, or skim milk or the milk which is squeezed from cheeses in their manufacture. After a fortnight the fat is seen to appear, and then we finish them off. We put in graisse or lard (ten grams to each goose) in their several meals, with the result that after five days of this kind of feeding the geese is so heavy and fat that two days more of the same regime would kill it. Sometimes, during the last three days eggs are put into their food if something very extra is required."

QUESTIONS AND ANSWERS.

[In order to make this department as useful as possible, parties enclosing stamped envelopes will receive answers by mail, in cases where early replies appear to us advisable; all enquiries, when of general interest, will be published in next succeeding issue, if received at this office in sufficient time. Enquirers must in all cases attach their name and address in full, though not necessarily for publication.]

Miscellaneous.

CHICKEN CHOLERA.

WM. REYNOLDS, Kent Co., Ont.:—"Please let me know the cause and cure of chicken cholera?" [Mr. Meyer, of Kossuth, deals with this subject in another column (Poultry Department).]

SMUT IN OATS.—TARES OR PEAS.—INOCULATION OF POTATOES.—BOG SPAVIN.

J. N. MACDONALD, Picton Co., N. S.:—"1. What is the cause of smut in oats? 2. Are peas or tares better to sow with oats for green feed? 3. It is said that if six or more different kinds of potatoes are grown side by side in a field, in a few years thus grown they will become one sort. If this is true, give reasons? 4. What is best to do with a bog spavin of a year's standing on a valuable horse? What blister will give good results without killing the hair?"

[1. Smut in oats is caused by the seed being contaminated with smut spores of a former year's growth. The smut spores can be destroyed by treating the seed to a hot-water bath. The oats should be placed in coarse sacks and dipped into water at about 140 Fahr. for from five to eight

minutes, turning and kneading the sack to get all the seed subjected to the treatment. Then spread the grain out thinly to dry. In Manitoba and the Northwest, bluestone (copper sulphate) has been used for several years with very great success in treating smutty wheat before seeding. 2. Tares are more in favor than peas, because the former grow more leafy and finer in the straw. 3. It is not true that potatoes will mix up if grown as stated. Hybridization can take place only through cross-fertilizing the blossoms, which afterwards set and produce potato apples. The seeds of these can then be sown and hybrid potatoes obtained. 4. For bog spavin the horse should be rested and wear a high-heeled shoe. In case of very violent lameness use hot fomentations, and when extreme heat and tenderness have subsided use the following blister: Powdered cantharides, 2 drams; camphor, 5 grains; oil of lavender, 10 drops; lard, 1 ounce. Mix thoroughly. When applying it, first cut the hair from the part, then rub the ointment well in with the palm of the hand and against the direction of the hair for several minutes. The animal should be tied to a high rack or otherwise prevented from reaching the blistered surface with his lips for twelve hours. Then the application may be washed off with soap and water and the part smeared daily with lard. The hair will not be destroyed if the scab is not broken during the first few days. When no lameness exists blistering is of little use, as it does little or no good in reducing the size of the enlargement.]

ARE LARGE FLOCKS OBJECTIONABLE?

SUBSCRIBER, Middlesex Co., Ont.:—"I have heard that when sheep are kept in a large flock, of say, 100 or more breeding ewes, they do not thrive well. Will you or some of the readers of the ADVOCATE kindly give your views with regard to the statement?"

[Sheep should not be kept in larger flocks than from thirty to fifty in summer to get the best results. We would strongly advise dividing them into as small lots as accommodation will allow for wintering (say fifteen to twenty to each pen), with plenty of yarding for exercise, as this is one of the important factors in successful lamb rearing. The Down breeds may be kept in larger flocks than the heavier long-wool sorts.]

LIVE STOCK MARKETS.

Toronto Markets.

The cattle trade has been quiet for the last two weeks; the supply of beasts was slightly in excess, but there was a scarcity of really choice top sorts. Exporters find difficulty in obtaining just the right quality, and so this branch of trade has been very inactive this season. There is not a great demand for wintering cattle, but there is a decidedly better feeling in the trade. Values for both cattle and sheep are now likely to improve. Butchers were on the market early, and though buying was not very extensive, still the aggregate made a good market. There was little waiting to sell the few better grades of butcher cattle. Drovers say that the cry for choice has been "all cry and little wool," because when brought in they do not realize a paying price, except when sold for export.

Export.—The market was practically unchanged; export cattle were a little better. Prices ranged from 3c. to 4c. per lb.; a few picked lots went a little better. All the shippers were sold by noon, \$4.20 being top price for fat stock.

Butcher Cattle.—We had no change in butchers' cattle; 3c. per lb. the top price. Medium sold at about 2½c., with an upward tendency. All sold at the close of the market. Twenty-five head, 28,570, average 1,140, fetched 3c. per lb. Sixteen cattle sold by Mr. Ellison, weighing 19,540, realized 3½c. per lb. Twenty-eight head, 32,680, average 1,167, went for 3½c. per lb. Sixteen cattle, the property of Mr. McLean, weighing 17,450, average 1,080, realized 3½c. per lb.

A few feeders are being picked up for the distilleries; it is expected that fully as many as last year will be put in.

Bulls are worth from 3c. to 3½c. per lb. for shipping purposes, but they must be choice to reach the top figure. Mr. Crawford and Mr. H. Thompson were the chief operators. Mr. Jesse Dun exported 800 sheep and about 150 head of cattle, via Liverpool direct.

Calves are unchanged, at from \$4 to \$6 each, with a good demand for the better kinds fit for export to the Buffalo market. Mr. Shortmiller took about 50 head, average \$5 per head. Common veals not salable at any price.

Sheep and Lambs.—Lambs are worth 3½c. to 3½c. per lb.; good lambs sell readily for the Buffalo market. Export sheep sell at 2½c. per lb.; ewes 3c. A good market for choice sheep at 3½c. per lb. The supply of export sheep still keeps good, but a note of warning must be again sounded—do not send a single sheep, if there is the slightest appearance of scab, to this market. A few good, selected, fat, 100-lb. butcher sheep sold down to \$3.

Hogs are unchanged, steady at 4c. per lb. for choice singlers. Thick fat, 3½c.; sows, 3c. All grades wanted except stores; these cannot be handled at any price; about 2,500 on offer. Market opened fairly active, closed easier. The drop in the price of hogs has made quite a difference, being \$1.25 to \$1.50 less than last year at this time; the very top price is \$4 to-day, with a downward tendency. Too many light hogs are coming forward. Nothing under 150 lbs. will fetch top price. Many of the hogs lack finish; another fortnight's feeding would make ½c. per lb. difference.

Dressed Hogs.—The cool weather has much to do with the liberal receipts of dressed hogs on the street market. Early in the morning from \$5 to \$5.50 was being paid for medium and select weights in farmers' loads, but as the receipts increased values dropped down to \$4.50 for heavy and \$5 for selects.

Milk Cows.—Good milk cows met a better market than for some weeks—\$20 to \$30 each, according to quality. One good cow sold to-day for \$40.

Receipts at the Western cattle market for the week: Cattle, 2,667; lambs, 3,623; hogs, 3,072. Over 100 loads of cattle were on sale to-day, a large run on hogs (2,500), and full supply of sheep (1,119).

Grain Market.—Street receipts are fair, and prices of grain somewhat stiffened. About 900 bushels of white wheat sold for 66c., one load at 67c. per bushel. One hundred bushels of oats sold at 21c. per bushel. Outside markets have stiffened Ontario wheat. Red sold to-day at 63c., and white at 64c.

Oats.—The feeling in oats is weak, owing to the fact that stocks are large and buyers generally are all loaded up. Values to-day are unchanged, at 22c.

Flour.—The supply keeps moderate, and prices have a very steady tone. A few lots are still being picked up for export. Sales of firsts were made at 12½c., and good seconds are at 9c. to 10c. Exporters are sending in large supplies of culled stock.

Cheese.—Market steady; dealers are buying round lots at 8c., delivered here, and reselling at 8½c. to 9½c. per lb.

The Fruit Market.—Business is generally good, the country trade much above the average. Receipts are still large, es-