

increase in the total amount of butter-fat produced by the one lot (protected in stable) over the other (out of doors and unprotected) was not sufficiently greater to pay for the increased trouble and expense entailed in stabling the cows during the greater part of the day."

The one experiment would lead us to think that many farmers have "a defect of sense" and are "turning trifles into things of consequence." However, we submit that it is one of those questions about which it is very difficult to secure proper comparative data. Some other factor, such as frightening the cows when applying the mixture, or fretting of cows while being kept in the stable, may have entered into the question. From enquiries among Canadian cheesemakers we find that those patrons who are using remedies for protecting their cows from flies, are dropping least in the milk supplied to cheese factories. On the whole, notwithstanding the evidence quoted, we are inclined to favor the use of some form of fly repellent. Get one with as little odor as possible and one which may be applied with a hand spray pump. This can be done daily in a short time. We should also favor remedies which do not make the coats of the cows greasy and sticky. All tar and oil preparations make the coats in a sorry mess, especially those of white cows. With some it is impossible to get the mixtures out of the hair and skin. No amount of scrubbing will remove the stuff. This must be more or less uncomfortable for the cow, until she sheds her coat in the spring.

Guelph, Can.

PROF. H. H. DEAN

Cost Versus Beauty in Cows

The proud owner says "this is a high grade Canadian, and this is a pure-bred Holstein." The admiring visitor to the cow stable remarks "what beautiful cows." The thoughtful student asks: "What yield of milk and fat do they give?" The practical man enquires: "What does their milk cost?" And the hard business sense of the dairyman leads him to determine cost of production of milk and fat through the medium of cow testing associations. The high grade cow may give but a poor weight of milk, the pure bred may test low, while the common grade may possibly be producing milk at the lowest cost. No one knows definitely just what the cost until some record is kept. Milk may cost 92 cents per 100 pounds, fat 25 cents per lb. These cost prices may be up to \$2.00 per 100 pounds of milk and 50 cents per pound of fat with some poor cows; or they may be reduced by skillful economical feeders to 35 cents per one hundred and 10 cents per pound.

This all goes to prove that the careful dairyman, and particularly the average and possibly careless farmer, should take immediate steps to find out what profit each cow brings. Enormous improvement, and largely increased profits have been made by the men who are sufficiently alive to their own interests to weigh and sample each cow's milk regularly and keep a record of feed consumed. Blank forms for milk and feed records are supplied free on application to the Dairy Commissioner, Ottawa. A good record for this month from a herd of 18 cows is an average of 1020 pounds milk, 3.9 per cent test, 39 pounds fat. One grade in the herd gave 1530 pounds milk testing 4.0 per cent fat.

Ottawa, Ont.

W.

Cow Testing Associations

Now that the factory season is getting into full swing, farmers are wondering how the cows will do this year. Cows are expected to make some profit. Great expectations are not always realized, and if pasture is poor, how is the milk flow to be kept up? Happy the man who has provided for a supply of green feed.

Some check should be kept on the yield of each cow. If the milk is weighed on only three days a month and samples tested once a month, then the owner will know very closely which are the heaviest producers. If weights are taken at every milking steps can then be taken to remove the cause.

If a record is kept of the feed, the most profitable cows can be detected, and some that might produce more if fed better will be given the opportunity.

This is what members of the cow testing associations are doing, studying each individual in the herd so as to make sure that each single cow kept gives a profit. This is evidence of good business management. No one wants to harbor a cow that is incapable of making a good profit. Does each one of your cows pay? Do you know that she does? Guess work won't do these days.

Record blanks are supplied free on application to the Dairy Commissioner, Ottawa. Many men since commencing to record are now receiving \$60 per cow when they used to get but \$40, because they know which are the economical producers. It certainly does pay to test cows.

Ottawa.

C. F. W.

POULTRY

Simple Egg Preservative

Perhaps the simplest and best means of preserving eggs for autumn use is to put them away in water-glass (sodium silicate). Water-glass is a substance resembling honey in consistency, and is of two kinds, English and American, the former being much thicker. Dilute the water-glass with boiled water (cooled) until it will allow an egg to sink. This will usually require about one part of American water-glass to seven parts of water, or one part of the English silicate to twelve of water. Place the solution in a tub, in which the eggs are immersed.

As unfertilized eggs keep better than fertile ones, do not allow males with the laying hens. Collect the eggs daily, and keep the nests clean, so the shells may not become soiled. Put into pickle no eggs not known to be absolutely fresh, and be sure that each egg is completely immersed throughout the whole period of preservation. It is better to keep the tub of eggs in a cool place.

With the foregoing directions carefully followed, the water-glass method will, at a cost of about a cent a dozen, preserve eggs four to six months in a condition quite good enough for use. Beyond that length of time results are not so reliable, although, in some experiments by the Aberdeen and North of Scotland College of Agriculture, eggs kept in water-glass four years were preserved in a condition not unsuitable for culinary purposes. Eggs immersed in water-glass come out looking fresh, with a clean appearance, after the chemical is washed off them.

Remedies for Poultry Troubles

While doctoring fowls is rarely worth a poultryman's time, there are certain ailments that yield readily to treatment, and certain medicines which, if at hand, may be used to advantage with fowls slightly affected, from errors in feeding perhaps, or injured in some way. If one has the following remedies handy, dry and in tins, they will be found useful some time: Epsom salts for use in liver troubles or when a bird is off color; roup powder for colds and roup; linseed when stewed has a soothing as well as strengthening effect after sickness; carbolyzed vaseline and iodoform powder used together form a good ointment for cuts, bruises and torn combs; permanganate of potash, dissolved in water, to be used to cleanse the mouth and throat; powdered chalk, to use with ground ginger for diarrhoea. Liquids: Castor oil for use when birds are over heated; glycerine for use when birds have bronchitis or hard breathing; salad oil to follow a dose of glycerine; camphorated oil for cramp or frozen combs; Parrish's chemical food given in drinking water as a tonic; tincture of arnica and tincture of iodine for painting on the lungs when birds are suffering from rattling in the throat or hard breathing.

Poultry Woman's Plan

EDITOR FARMER'S ADVOCATE:

In cleaning up a poultry house first carry out of the building nests, roosts, dropping boards, dust boxes, etc. The roosts should rest in sockets so that they can be easily removed, and the dropping boards should rest on cleats and not be nailed down. It is more convenient when removing them to have every three or four boards nailed together. The nest boxes, in our houses, are put on shelves about two feet from the floor with a board between the nests and the wall. The covers are hinged to the wall above at such an angle that the fowls cannot roost on them. These are all taken out and the dust and cobwebs swept from the wall and overhead.

Then we make an ordinary lime wash and add to a pailful about two ounces of carbolic acid. We use this wash all over the inside of the building, applying it with an ordinary white wash brush. It is said to be pleasanter and easier to use a good sprayer but we farmer's wives who raise "poultry for profit" are not nabobs and have to use what we have.

The floors when the house was built covered several inches deep with sand and gravel. Once a year this is taken out and replaced by fresh material. A box about eighteen inches square is kept in each pen, kept six inches deep with ashes in which we sometimes dust an ounce or two of sulphur or a little Persian insect powder. Road dust might be better than ashes but we have seen no ill effects from the ashes, and the dust bath is easily renewed.

When the house is thoroughly cleaned we either put in new roosts and nest boxes or thoroughly cleanse the old ones. We have scrubbed our old nest boxes, including the covers, with a strong solution of Gillett's lye applied inside and out with an old broom. Then we paint the roosts with coal oil or Cyphers lice paint. The latter is destructive to insects, but we thought it injured the hens as they

sever seemed so bright for a few days. A good way to rid a house that can be closed tightly of lice and mites, is, during the absence of the fowls, to place an iron vessel in the middle of the floor well isolated from any inflammable material. In this vessel place a quantity of shavings, saturated with coal oil, and over these sprinkle sulphur at the rate of one pound for every one hundred feet of floor space, light this, and "light out," and don't forget to close the door, and to see that the windows are all shut. After a few hours open all doors, and windows and allow all fumes to escape before admitting the fowls. It would be well now to thoroughly dust each fowl with Persian insect powder, going over them three times at intervals of about a week when it will be safe to conclude that your birds are free from the plague of lice.

Man.

MRS. WM. KINLEY.

FIELD NOTES

Prairie Population

The census bureau, Ottawa, estimates that the population of the prairie provinces, which was only 800,000 in 1906, has increased to 1,100,000 within the past three years. The estimate is as follows:

Province	June, 1906	May, 1909,
	Census.	Estimate
Manitoba.....	365,688	484,519
Saskatchewan.....	257,763	349,645
Alberta.....	185,412	273,412

Totals..... 808,863 1,107,625

Of the increase at least 150,000 is said to have come from the United States, as only 148,700 of overseas immigrants have come west, 233,000 of them having settled in the Eastern provinces.

Grenfell Plowing Match

A successful plowing match was held by the Grenfell Agricultural Society on June 23rd. The usual classes were arranged for good competition developed in all sections. William Turner, Carrol, Man., winner of last years provincial championship acted as judge. Jas. Dale won first in the walking plow class, George Hyde and James Fotheringham being placed second and third. Edward Wyatt, won first in sulky honors and sweepstakes prize for the best plowing in the field. The boys prize was won by Douglas Richardson. The youngest plowman was Tom Amy, 11 years old.

Foster's Forecast for July

Foster's latest weather bulletin forecasts a disturbance to reach the Pacific coast by July 7, cross Pacific slope by close of 8, great central valleys 9 to 11, Eastern States and Provinces 12. Warm wave will cross Pacific slope about 7, great central valleys—longitude 105 to 85—about 9, Eastern States and Provinces—longitude 80 to 75—about July 11. Cool wave will cross Pacific slope about 11, great central valleys 13, Eastern States and Provinces 15.

The disturbance will inaugurate the most severe storm period of the month and for ten days—July 11 to 20—better be on the watch for dangerous storms. During these hot days of July people love to be on the water and, therefore, I advise all to select some other period than the ten days mentioned.

July, prior to 20, will bring too much rain to the southern or cotton States, and I am expecting drouth in Northern States and Canada. The highest temperatures usually occur not far from July 10, the highest averages to occur eight or ten days earlier. Not far from July 5 very low temperatures will prevail about Chicago, through the north-western States and the western Provinces of Canada.

Some danger of destructive hailstorms, July 11 to 20, in those crop sections of which Minnesota is central. Those hail storms sometimes do great damage and that period will be closely watched by all interested parties. The disturbances that will bring those storms are similar to those that cause tropical storms on our south-eastern coasts, but this year the disturbances will come a little too early for that class of storms.

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The Canada Gazette contains notice of incorporation of the St. Boniface Union Stock Markets Company, Ltd., with a capital stock of \$1,000,000 and chief place of business at Winnipeg. The provisional directors are: Norman G. Leslie, Conrad S. Riley, Harry Ford, Walter E. Lugsden and James B. Coyne, all of Winnipeg.

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Forty-four heavy draft horses, the property of a railway contractor, were sold last week in Winnipeg and will be replaced in construction work by mules. The horses brought from \$100 to \$260 each. Mules seem to be replacing horses in railway work in the West to a very considerable extent, contractors regarding them as better fitted than horses for the work and less expensive to maintain.