



The Hen in Winter

HENS need some green food in winter if they are to lay well. Mangels, carrots and cabbage are good. Hang them up so that the hens can just reach them nicely. Sifted oats are also good. Alfalfa and clover leaves and lawn clippings, carefully dried, can be soaked up and fed to good advantage.

The hen should be given exercise in the winter. One way to furnish some exercise is to feed such grain as corn, oat, wheat and barley in hick. Cover the floor with straw six inches deep and scatter the grain feed in it. The straw should be changed frequently, as it must be remembered that it will soon become soiled from the droppings from the birds. Some of the poultry diseases are spread through the droppings.

In the summer, when the hens lay well, they have bugs, worms, grasshoppers and other insects. In the winter they need something to take the place of this kind of food. Cut fresh plants is very good. Half an ounce daily per hen supplies all the needs of this food. High-grade beef scrap is good and is in a very convenient form for feeding.

Fresh air is very necessary in the poultry house. Without ventilation the poultry house is neither dry nor sanitary. Chickens in a damp house are more liable to colds and roup than in a dry house. One of the best ways to ventilate in winter is by having an opening covered with muslin. An opening on the south side, two by three feet for each eight or 10 feet of length of house. A good way is to put the muslin on a frame, which can be on hinges, so that it can be raised on warm days, to allow more air to enter. -N. D. A. C.

The Science of Feeding

By Michael K. Boyer.

THE feeding of fowls has become as much a science as has the feeding of dairy or beef cattle. Poultrymen have their balanced rations for their fowls. They feed especially for egg production, growth and fattening purposes. The farmer too often feeds for convenience, and relies on corn to produce all the above requirements, hence the poor results on many farms. "Variety is the spice of life" in the poultry yard, as well as with humans.

In buying feed, remember that white middlings is better than brown, that white oats is to be preferred to the black, that coarse bran is better than fine, that hulled oats is better than oats with the hulls on, that white corn is not so fattening as the yellow variety, and that Kaffir corn is an excellent grain, and should be more extensively fed.

Said a poultryman some years ago—and we have learned the same fact by experience—and it is worth repeating here: A good deal has been said about the value of scalded mash, and I am one of those who have used them during the winter. I have fondly imagined that they were better than those which are simply mixed warm. I asked a chemist about this the other day. He is a man who has given much attention to a closely-allied subject, and he nearly knocked me off my pins when he informed me that, unless the mash be thoroughly cooked, its feeding value is identical whether scalded, steamed, or mixed cold.

Feed For Hard-Shell Eggs

THE feeding of hens for the production of hard-shelled eggs, not easily breakable in handling, is possible and demands attention. Shells vary greatly in strength. A strong, heavy shell is not nearly so likely to be broken by the jars, jolts and rough handling incident to ordinary shipment as a weak one.

Chemical analyses show that the shell of the egg is largely carbonate of lime, but that it also contains carbonate of magnesia, mineral phosphate and some organic matter. If strong shells are to be produced, the mineral elements must not be lacking. Grains that are ordinarily fed do not contain these mineral elements in sufficient proportions, and an additional and separate supply is necessary. Fortunately, these mineral elements are available in much cheaper forms than in grains. Lime is the principal ingredient of oyster shells, which may be procured for about \$12 a ton. Iron, magnesia and open phosphorus, in many kinds of artificial grit, may be procured for about the same price, while these elements in grain would cost at least double these figures.

Bone meal contains phosphorus in appreciable amounts, besides lime, magnesia, etc., and while expensive, it is effective in giving the shell an evenness and fineness of texture which adds much to its strength. It is, therefore, often used as an ingredient for dry mashes for laying flocks, usually in amount varying from three to five per cent.

Eggs that won't break give the poultryman greater profits than eggs that will. Make your hens lay the non-breakable kind.

Lennox and Addington's Flourishing Poultry Trade

ONE hundred thousand dollars worth of dressed poultry from one county in six months! That is the estimate placed upon the poultry export of Lennox and Addington between June 1 and December 1, 1916, by G. B. Curran, B.S.A., the district representative. In his report of the poultry activities of the people of his county he says:

"The Annual Turkey days were held on November 29th, 30th and December 1st. A new plan was tried out this year, all the buyers were required to go to the market and bid. There were 15 buyers present and there was lots of competition. The prices were the highest ever paid in Napanee. Turkeys sold for 31c to 38½c, chickens from 7c to 27c, ducks went around 18c and geese 22c. One woman sold \$700 worth of dressed poultry, mostly turkeys. The three banks paid out in actual cash \$17,000, \$10,000, and \$8,000, making a total of \$25,000 for three days. This is about the same amount as was paid three years ago when there were nearly double the amount of poultry offered for sale. The buyers state that Napanee is the largest poultry centre in Canada and that the quality of dressed poultry marketed at Napanee is much better than at any other point where they buy. We believe that this is due to our four years work, inducing the farmers to fatten all poultry before they market it.

In addition to the poultry market in Napanee on turkey days, buyers have been buying at Marlbank, Tamworth, Enterprise, Newburgh, Bath, and Amherst Island all day and a continual stream of poultry has been going out of this country since September. I think that it is quite reasonable to estimate that since June 1, 1916, to the end of December, 1916, that over \$100,000 worth of dressed poultry has been marketed in Lennox and Addington County."



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We are planning to have a display of Wagons, Buggies and Farm Implements at our Convention Feb. 28 to March 2. Make a point to be there.

The United Farmers' Co-Operative Co. LIMITED

"THE ONTARIO FARMERS' OWN ORGANIZATION"

110 Church Street Toronto, Ont.

SOCIAL SERVICE CONGRESSES

TORONTO---Convocation Hall, The University, Jan. 31-Feb. 2.

MONTREAL---Y.M.C.A., Jan. 29-Jan. 30.

Under the Auspices of

The Social Service Council OF CANADA, in the Interests of The Social Awakening in Canada

Among the many distinguished speakers are: MR. RAYMOND ROBINS, of Chicago, farmer, miser, millionaire, Social Reformer, and Prince of Orators; DR. HASTINGS H. HART, of New York, greatest Child Welfare Expert on the Continent.

A whole Session's conference given to RURAL LIFE. The speakers: Dr. W. A. Riddell, Dr. J. B. Dandeno, Alex. McLaren, B.S.A., Rev. W. K. Shearer, Dr. T. Albert Moore.

Subjects at Rural Life Conference: "Recreational Life," "The Church and Rural Life," "Educational Ideals," "The Social Organization of the Rural Community."

Some other subjects are: "The Returned Soldier and the Land," "Women in Politics and Industry," "The Patronage System," "Graft," "Social Reconstruction After the War," "Race Track Gambling," "Prohibition," etc.

Other speakers are: Hon. W. H. Hearst, Sir Geo. Foster, N. W. Rowell, E. C. Drury, Dr. J. A. Macdonald.