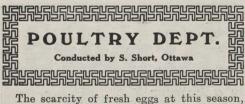
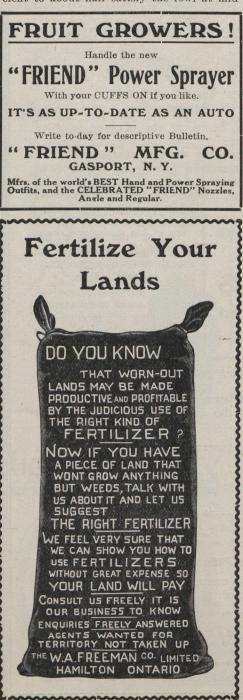
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which is the rule with few exceptions amongst poultry keepers, brings up the question of rations. The general opinion, from the discussion on the subject by the members of the Ottawa fraternity, seems to be that mixed grain is better than one variety, that it should be fed in clean litter, such as forest leaves or straw to promote exercise and vigor, and that there should be plenty of vegetables—mangels preferred—or beets, cabbage, turnips, small potatoes, or carrots. Also some animal food should be given in the shape of ground bone or home-cooked meat from the stock pot. Some few did not feed soft feed but the majority were in favor of feeding sufficient to about half satisty the fowl at mid-



day. My own opinion about soft feed is that it is a good ration for fowls in a warm house, and for active fowl like Leghorns, Minorcas, and birds of that type. For heavy fowl in a cold house I think whole grain is better, and that soft food should be fed sparingly to laying fowls.

To summarize, the following rations and equipment are recommended and if fed intelligently and systematically should produce good results if the fowl are of the proper age and the house at all comfortable. Mix grain in the following proportions: 40 per cent. wheat (good); 20 per cent. oats; 20 per cent. barley; 20 per cent. corn (whole).

Give one pound of this to every six birds in the morning, throw into fresh litter, a sparing feed of ground meal (soft food) at noon, and the same quantity of grain as the morning fed in the evening. Add to the above, once or twice a week, an ounce of ground bone for each fowl, or meat supplied in any convenient way. Give fresh water daily.

There should be an unlimited supply of grit and oyster shell. This is very essential. The grit supplies the stones for the gizzard, through which all the grain passes, and is there ground up. As soon as the stones are worn smooth they are expelled and fresh, sharp ones are swallowed by the fowl to take the place of those discarded so that if no grit is supplied, the fowls are in danger of having indigestion which is sometimes fatal, and will always prevent the hens from laying. The oyster shell is also a necessity to supply lime for the shells of the eggs. The layers are able to eat different substances containing lime and manufacture it into egg shell. If there is no lime supply, the shells are very thin and are easily broken. If eggs are broken, the hens will invariably eat the eggs chiefly to get the shell and this forms the egg-eating habit, which soon spreads through the flock, and if so, is exceedingly hard to cure until the fowls leave the winter quarters and get out of doors again.

Some discretion must be used as to the quantity of food supplied. The hens should go to roost with their crops quite full and yet not leave food around for rats or mice. If their crops are felt just after they have gone to roost, the fullness or otherwise will indicate whether to increase or decrease the rations.

Cooper's Spray Fluids.— The approaching spraying season renders it imperative that progressive fruit growers should obtain all possible information concerning the many brands of commercial spray fluids upon the market. From time to time we have published in these columns during the season of 1909 various endorsations from prominent fruit growers of Messrs. Wm. Cooper & Nephews V1, V2 and V3 Fluids. From the mass of evidence collected it appears conclusively that this well known firm have at present spray articles which rival anything of the same nature. As is well known, for ease of application they are unrivalled. We recommend our readers to apply to Messrs. Wm. Cooper & Nephews for their very complete list of experiments conducted during 1909 by uninterested and unprejudiced fruit growers.





