

power of resistance to the bacillus 7. Infective tuberculosis is not catching in the ordinary sense of the word; it is the patient's expectoration, and not his person, which is dangerous. 8. The following practical points in the prevention of tuberculosis were inculcated at the congress: (a) The primary importance of free ventilation and wholesome and abundant food. (b) The prevention of infection of the lungs by the bacillus depends chiefly on the rational treatment of the sputa of consumptive patients. The phlegm should never be deposited on the ground or on the handkerchief (in the manger or upon a neighbor's feed, in the case of cows). All milk should be boiled, and all dairies should be inspected. Infection by meat can be prevented by thorough inspection of carcasses, or by testing all cattle with tuberculin.

## CORRESPONDENCE

### A Farmer Should Realize \$200 Every Year From Poultry

To the Editor of FARMING:

Replying to yours of the 17th inst., I may say that:

(1) The average farmer could keep 100 laying hens, a trio of ducks or geese, and a trio of turkeys without interfering with his ordinary business. Some farms are better adapted for raising geese than others, so that, as a general rule, every farmer could not raise geese to advantage.

(2) For egg production alone we find Leghorns and Andalusians are superior. For fattening purposes Wyandottes, Plymouth Rocks, Dorkings, Langshans, and Brahmas all do well. These are all fair layers, and are, perhaps, superior to other fowls as winter layers.

(3) It is extremely doubtful if fowls can be handled to advantage unless they have a suitable house. I know of some who get good results when they have a small pen adjoining or in a bank barn and where during the day the fowls get a free range over the yard and shed.

(4) The farmer can grow all food required for fattening poultry. The foods required are oats, barley, peas, and buckwheat. In addition to these a farmer needs, for fattening to advantage, skim-milk and a small amount of tallow.

(5) One hundred hens should lay at least ten dozen eggs each during the year. Where 100 laying hens are kept a farmer should raise about 200 chickens, one-half of which would likely be cockerels, and from the other half could be selected sixty or seventy fine pullets to put along with thirty or forty of the best yearling hens for the next season's business. He should raise at least thirty ducks and about twenty or more turkeys. I believe the average farmer should sell, at the lowest, \$200 worth of poultry every year.

(6) At present I am not prepared to say the average farmer can fatten all his poultry for the British market, but I am inclined to believe he can if he has the right kind of fowls.

W. R. GRAHAM.

Ontario Agricultural College, Nov. 20th, 1899.

### Improving Quality of Crop

To the Editor of FARMING:

In discussing manuring for quality in fruit with a prominent Niagara fruit grower recently, he pointed out that no stock manure had given such excellent results in the quality, ripeness, hardness and taste in small fruits as hog manure.

This fact can be accepted generally wherever the relative practical merits of stock manures are recognized.

But if it be so in practice the principle is fully borne out by scientific investigation. Hog manure is found to be richer in these three constituents, nitrogen, potash and phosphorus than average barn-yard manure. It is always expressed

as being "*stronger*" than other manure apart from poultry. The hog is a grain fed animal largely, and grain is rich in phosphatic matter.

But which of the three constituents is responsible for the quality? A Canadian agricultural authority recently reported that manuring with phosphoric acid in combination with lime (phosphate) had so improved the quality and lasting qualities of grass land that twice the amount of stock had been supported and each animal made double the weight as compared with results from the same area of land in the other part of the same field.

Still later another eminent investigator in his experiments to determine the influence of fertilization or quality in the seed has afforded further proof of the importance of phosphate manuring. In his experiments fertilizing with phosphoric acid had increased the fat content of the seed over two per cent., but the seed got from the soil fertilized with nitrogenous fertilizers was richest in nitrogen and poorest in fat. In this instance the soil may have had already an abundance of nitrogen in it through growing leguminous crops, clover and peas, or by using stable manure.

From the date before us it may be pointed out that where special manuring is followed out in addition to using all the available stock manure, mixed fertilizers may not always be profitable.

Only recently have Canadian and American experiment stations emphasized more strongly than ever buying the fertilizing constituents, nitrogen, potash and phosphate separately and let the farmer do his own mixing, instead of paying the manufacturer. Where mixing facilities are not convenient then the safest way is to apply each distinct material by itself direct to the soil from the package in which it is shipped.

Mr. Wallace's contentions are based on this same ground but he candidly points out how farmers may, through the home resources of the farm, supply the needed nitrogen freely, and if they keep plenty of stock even largely maintain the potash supply.

Bronte, Ont.

W. P. THOMPSON.

### A Farmer's Opinion on Poultry Keeping

To the Editor of FARMING:

Although the poultry industry is receiving more attention from the ordinary farmer than it formerly did, there is still room for expansion and better methods.

(1) On an average farm about fifty hens can be kept, and in addition to these a few turkeys, and the produce of one pair at least. Of course they will require some attention if success is to be attained. The young turkeys need close attention for a time, and during the fattening period some grain is required, but for quite a length of time during the summer they will hunt their own food, picking up grasshoppers, bugs, and other insect enemies of the farmer. If the farm has a stream or pond of water, ducks and geese can be profitably kept.

(2) For egg production there are several good varieties. I have found the Brown Leghorn as good as any. For fattening purposes I do not know that there are any that excel the Plymouth Rocks.

(3) Fowls do not require very expensive buildings, but to get the best results, that is, the most profit, they should have suitable accommodation provided for them.

(4) Either for egg production or fattening purposes, all or nearly all the foods are or can be produced upon the average farm.

(5) The income that may be derived from the fowl industry on an ordinary farm may not seem large compared with the other lines followed, but with some care and attention \$70 to \$85 should be derived.

(6) So soon as the Canadian farmer is educated as to the requirements of the British markets, I do not see any reason why he cannot successfully meet them.

Walkerton, Ont., Nov. 18th, 1899.

J. TOLTON.