

The solution of the question is, that, in retentive soils, all currents of water puddle their bed, and prevent the water rising up through it : this by the way.

So much for the theory of drainage. In the next issue we will attack the practice.

WHEAT.

The Soil.

A soil which, in the ordinary course of cultivation, would have received an application of manure before another crop was grown, has produced 40 crops of wheat in, succession, averaging 14 bushels per acre, solely by means of its existing fertility.

At the commencement of the experiments, the soil contained a large amount of organic nitrogen, derived from the *débris* of pre-existing vegetation. It also contained a large quantity of mineral food of plants.

Every year a certain proportion of the organic nitrogen has been nitrified by the agency of organisms existing in the soil.

Part of the nitrates found has been employed in the growth of the wheat crop ; part lost by being washed out of the soil.

The loss of nitric acid is greater in wet seasons, and the amount taken up by the wheat crop is in consequence smaller. Comparatively, dry seasons should therefore be favorable for the production of large crops of wheat.

The stock of soil fertility in the form of organic nitrogen has been considerably reduced during the forty years that the experiments have been carried on ; the amount of each reduction has been ascertained by analysis of the soil made at different periods. The stock of both potash and phosphoric acid has also been largely reduced.

Although so much fertility has been removed, the stock that remains would appear to be sufficient to grow crops of wheat for a very long period ; the produce, however, must in process of time necessarily be lower than it has hitherto been.

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(To be continued)

NOTES IN PASSING

Sunshine is the best medicine for poultry as well as men. If the house is dark and gloomy the fowls will stay out of it even in the worst weather. Nothing likes sunshine more than poultry.

Egg shells soaked in kerosene and scattered about are recommended by the Wisconsin Farmer as a remedy for the egg eating habit. Cutting off the end of the bill is still thought by some a better remedy.

While it is undoubtedly unprofitable to doctor very sick fowls it is advisable to treat slight cases of disease in the first stages. Such ailments as colds, that soon lead to lameness from cramps or rheumatism etc., can be easily treated, and it is advisable to do so, but when these troubles turn into croup, cholera, liver troubles and other contagious diseases, then it is far better to kill the patient.

One breeder with fifty chicks is less trouble than one old hen.

Clean out your poultry house or your poultry will clean out your pockets.

It is comparatively an easy matter to grade up a common flock, so that for egg and meat production they shall compete favorably with pure breeds.

It is never a good plan to yard all kinds of fowls together. If large size and weight are desired, select large hens, but the male bird should be active and vigorous.

The hen machine takes a little time to get ready for its productive work. Liberal feeding must precede eggs. Any breed of hens will consume a large quantity of feed before beginning to lay, but after having once begun they will not require or even consume as much food. When laying their craving is for vegetables, animal substances, crushed bones, and shell material.

There is no question but what standard bred poultry is the best for all purposes for in every contest where a record has been kept standard