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Loss of Nitrogen in Drainage Water.

According to the experiments of P. P. Dehérain, the drainage water from soils bearing a poor crop is much richer in nitrogen than that from soils bearing a good crop. In fact, the total nitrogen removed from the soil, by the drainage water and crop combined, was greater in the case of the poor crop than in that of the good crop. Further experiments go to show that fallow soils lose much more nitrogen in the drainage than those covered with crops, and, therefore, autumn catch crops are deemed important.

T. Schlossing, however, maintains that the methods employed in determining the loss of nitrogen in drainage water have denoted a much larger loss than really occurs; and analyses of river water indicate that the losses are not nearly so serious as has been supposed.

A Grass Bulletin.

Messrs. F. C. Harrison, B.S.A., and G. F. Day, B.S.A., of the Ontario Agricultural College, have just issued a bulletin on some of the grasses found in Ontario. Some twenty-six grasses are noticed, including those weeds which belong to the grass family. Complete botanical descriptions of the grasses are given, together with notes on their agricultural importance, cultivation, etc. Perhaps the most important feature of the bulletin is the cuts of the different grasses, which greatly assist in their identification.

The old form of bulletin has been abandoned, and the pages are much larger than those of the bulletins heretofore published by the department. This is certainly a great improvement.

Feeding Hens.

Bulletin 90, new series, of the Geneva Experiment Station, reports an experiment in feeding laying hens on whole grain versus ground grain, part of the latter being moistened with water before feeding.

The test was made in duplicate, White Leghorns and Buff Cochins being used. The results are somewhat contradictory, as will be seen from the following summary:

(1) Two lots of laying hens, of large and small breeds respectively, having their grain food only dry and whole, ate more food at greater cost per fowl and for the live weight, than did two similar lots having about thirty-seven per cent. of their grain ground and moistened.

(2) A pen of Leghorns, which had for the year thirty-seven per cent. of their food ground and moistened grain, produced eggs at a greater profit than did an exactly similar pen fed whole grain.

(3) Of two like pens of Cochins, the one fed whole grain produced eggs at much less cost than did the pen having ground grain, which result is attributed partly to the exercise assured in feeding whole grain.

It is also stated that, with the kinds of grain usually available, it is not possible to supply the hens with sufficient nitrogenous matter when feeding whole grain alone; but by using some highly nitrogenous by-product with ground grain this difficulty may be overcome without feeding an excessive amount of meat.

The experiment also indicates that when the egg product from the large and small breeds is the same, and when the cost of raising and the ultimate poultry value of the hens are taken into consideration, the profits will be, if anything, in favor of the larger hens.

The contradictory results indicate the necessity of care in drawing conclusions in connection with experimental work in general. One experiment will not settle any feeding problem, but satisfactory conclusions can be drawn only after a large number of experiments have been carefully conducted. It will, no doubt, require a great many more experiments before the question mentioned above can be settled, though at first sight it may appear to be a very simple one.

Exterminating Chinch Bugs.

One of the destructive pests of the Western States is the chinch bug, which, during some seasons, does great damage to the grain crops. Till lately there had been discovered no means of combating them, but now it has been found that there is a certain fungous growth which, when applied to the bugs, kills them. At the present time, experiment with this fungous growth are being carried on at the Minnesota State Experiment Station, to see what success is likely to attend the spreading of this disease among the healthy bugs. So far, the results have been most satisfactory.