

the root to show this, and no one can test the matter except an experienced chemist; if, by sending a sample for analysis, you have your expectation fully confirmed, you may save much more than the analysis would cost by buying, instead of fodder rich in nitrogenous matter, much cheaper articles that are rich in non-nitrogenous substances, and at the end of the year your animals will be in just as good a condition as if kept on a richer and more expensive fodder.

Let me illustrate these principles by an example, taken from a prize essay on stock feeding by Kuhn, director of the agricultural school, Halle, in Germany, an essay so well received by the German public as to have passed through three or four editions. As the example is taken only for illustration, I have not considered it necessary to give our current values, instead of the German prices in thalers, for the various articles of fodder mentioned; the thaler is worth about 75 cents.

It is supposed that fifty cows whose average live weight is about 950 pounds, are to be kept over winter, and to be stall-fed for the space of 200 days. The first step taken is to ascertain how far the stock of fodder in store will meet the demand. We have enough meadow-hay so that we can give each cow 400 cwt.; we have also 400 cwt. of good clover hay for each cow, of barley straw 100 cwt., of wheat straw 500, and of rye straw 1,200 cwt.; but having enough of these coarse materials without the rye straw, we will use that for litter. Of chaff, mostly wheat, we have enough for 400 lbs. for each cow, and of roots 5,000 cwt. We have also 2,500 bushels of potatoes; the price they will bring in the market is low, and it must be carefully considered, whether it will be more profitable to sell them, than to feed to the stock.

As to the quality of our foddering materials, three-fourths of the meadow hay were stored in an excellent condition, while the remaining one-fourth was somewhat injured. The clover grew on a strong rich soil, and was moreover manured with wood ashes; it was cut just as it was beginning to bloom, and stored in the best condition; we feel justified in expecting it to contain a large proportion of nitrogenous substance; consulting the tables we