

towns and cities. To-day we find as much attention being paid to the science of the calling of agriculture as to anything else, and the result has been wonderful progress, a wonderful development, which has begun of late and which is now in progress, and the result of which we can hardly forecast at the present time.

Let us take two or three illustrations: We sometimes hear it said that there is not very much in agriculture, that it is a dry subject, with nothing interesting in it, that it belongs so to speak to the common people and not to the literary class; there is nothing about it likely to attract the attention of people. Now, I will give you an illustration, which probably you may have had presented to you before. It has been known for years that there is wonderful difference in different crops, in the methods of their feeding. For instance, they say clover will feed in one way, that wheat will feed in another, that our common grasses of the field feed in another, and because of their different methods of feeding, therefore, it is advisable that we rotate crops, one kind one year, another kind another year. We can perhaps illustrate that by representing before us here a large table. Suppose a long table were set up in this room, filled with all manner of food, and you as an audience were asked to sit down at the table to partake or taste, and to take all you would want to eat. No two of you would want to eat the same kind of food. One man would have a preference for fruits; another man might have a great preference for meats; in fact there would be a choice in the kinds of meat. Your tastes differ; your methods of feeding differ. After you were through, if you will allow the comparison to be taken to a little lower level, suppose we were to bring in some animals of another kind whose tastes were different from ours, they would be able to take from what was left. Still there would be a portion of the food they would not take, and we could bring in something else and finally the scraps might be thrown out to the poultry. So if you alone were to be fed upon that food there would be a considerable amount that would not be taken; you could not make use of it, but what you did not want some other animal would devour; what the second class of animal would not devour the third would. Here is a large feast, so to speak, prepared by nature for plants, and we put one kind of plant upon that soil this year. It has a preference for a certain class of food and takes it, and next year another kind of plant is put upon that field which has a different feeding capacity from the one of the preceding year and that plant takes what the other one does not want, and so on by rotating year after year, for three or four or five years, we are able to satisfy the wants of all, whereas if we kept on with the one plant year after year, we would have exhausted the particular food of that one plant and the rest of the food that was there would have been left lying idle all the time. Many farmers in years past, thinking the soils of this country were entirely inexhaustible, put in wheat this year and wheat next year and so on, until finally they were forced to the conclusion that there was nothing left for the wheat and they have taken their attention to other things. We find in many cases what was once a first-class wheat farm became a very poor wheat farm, and then after a number of years that poor wheat farm has become a first-class dairy farm, because different crops have been grown for milk, butter, and cheese.

I want to refer more particularly to one of these plants, viz.: Clover. I do not think there is any plant that presents a more interesting study, interesting though they all may be, than this much neglected and underrated clover plant. It was found that it fed in a different way entirely from the wheat, and then the question that presents itself to the minds of some of these much despised scientists is, in what way does that clover plant live? How does it differ in its feeding from other plants? After a long and careful examination, some came to the conclusion that it got most of its nourishments out of the air. Others concluded because it had a long root and it could go down into the sub-soil, that it got its nourishment there. They finally found something that had escaped the attention of most examiners, in connection with the roots of the clover plant upon which there were little knots or nodules. Now, I suppose hundreds of thousands of clover plants had been examined and these little knots had been seen. Someone who was a little more inquisitive pushed his question a little further and began to ask himself this question seriously: "Now this little bud or nodule on the roots must after all play some part in the economy of this clover plant." And to sum the whole thing this has been the