2. LIME SURVEYS FOR USE IN ILLINOIS AND TESTING FOR LIME REQUIREMENT

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The need for a soil testing project in our extension program became evident several years ago. Although our extension workers had for years emphasized soil acidity and the need for soil testing in our limestone legume program, progress had not been satisfactory. Many farmers were wasting clover seed year after year on land that was too acid to grow this crop successfully, while other farmers were too enthusiastic about limestone, and as a result were liming land that did not need lime. The rank and file of farmers were not correctly informed on the question of soil acidity.

Several points seemed to demand consideration in such a project. These were as follows:

1. The farmer must be educated to a better understanding of the problem of soil acidity.

2. The plan must include the systematic testing and mapping of the field or farm. This was necessary because of the variations in the soil with respect to its lime needs. The soils, even within a single field, will usually vary in their need for lime. Often a field will have areas of sweet, slightly acid, medium acid, and strongly acid soil. A systematic plan of testing and mapping seemed to be necessary to outline the areas with different lime requirements. Previous experience had indicated that the testing of only one or two samples was not sufficient, and might be altogether misleading.

3. Such a project must make it possible to test a large acreage with a minimum of time and labor. Most of the soil testing in the past has been done by the farm advisers. This testing was usually confined to the testing of one or two samples from fields on various farms in the course of their farm visits. Sometimes they were called on to drive many miles for the specific purpose of testing a farmer’s field. Although the farm advisers usually test only two or three samples from a field, this service requires too much of their time. Of course, it was out of the question to expect the adviser to offer an extensive and reliable soil testing service to his membership. The solution to this problem seemed to be that the farmer must be taught to test his own soil.

1Paper read as part of the symposium on “Lime” at the meeting of the Society held in Washington, D. C., November 22, 1928.

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