Attempts have been made for several years to grow alfalfa in the various counties of western Washington. These counties are all situated in the humid area of the state, west of the Cascade Mountains, and it has been found that there are some difficulties in the way of raising alfalfa successfully on certain soil types. The origin and formation of the soils in this area are glacial, residual, and alluvial. Because of their formation under humid climatic conditions these soils have been subjected to considerable leaching, are somewhat acid in reaction, and in addition present many fertility problems.

The economic advantage of growing alfalfa in the dairy sections of western Washington is easy to understand when it is considered that one of the main items of expense for a considerable number of the dairy farmers is the purchase of good hay for feed during the winter months. On a few of the soil types of this area alfalfa can be grown fairly successfully without any exceptional difficulty in securing and maintaining a satisfactory stand, but this is rather the exception than the rule. While on many soil types a good stand of alfalfa may be obtained early in the season especially when the seed is planted without nurse crops, numerous yellowish spots make their appearance in the field later in the season and the crop in general lacks thrift and vigor. The following spring the alfalfa usually does not show up well and in many cases has a poorer appearance than the first year. If the farmer does not get discouraged and does not plow up the field, the alfalfa may manage to survive rather indifferently that year. If it does survive usually some improvement may be noted during the third season resulting in a fair but not a very satisfactory crop.

Proper soil reaction and adequate inoculation with nodule bacteria are generally conceded to be two very important factors in the suc-