INFLUENCE OF ALFALFA ON THE CHANGE OF VIRGIN SOILS IN THE COTTON DISTRICTS OF ARMENIA

KH. P. MIRIMANOFF

INTRODUCTION

The contribution reported here is the result of field investigations and analyses of soil samples collected in the Echmiadzin district of Armenia. This region is typical of the cotton districts of Armenia. Here cotton is the dominant crop, and hence, occupies an important place in the agriculture of the country.

As the area devoted to cotton increases, the problems of improving the physical, chemical, and biological properties of the soil assume great importance. After consideration of the environmental conditions of this district, attention was given to some areas, a part of which had never been cultivated (virgin soils), while other parts had been under cultivation for more than eight years.

The profiles from which soil samples were taken were selected from those which were the most representative of each soil type. Samples were taken from the virgin soil profiles as well as from the cultivated ones.

METHODS

The mechanical analyses of the soils were made by the new English method (6). Mechanical fractions were classified according to that of the laboratory of soils of the Agricultural Academy of Moscowl The organic matter (humus) and CO_2 were determined by the Knop method and nitrogen by the Kjeldahl method. The water extracts were prepared from the soils by passing the soil through a 1-mm sieve

1Contribution from the Central United Laboratory of Armenia. Received for publication June 24, 1929.
2Lecturer at State University, Erivan, Armenia, U. S. S. R.
3Reference by number is to “Literature Cited,” p. 107.