

INTRODUCTION

Organic matter contributes to plant growth through its effects on the chemical, biological and physical properties of soils. The soil organic matter serves as an energy source of soil microflora and macrofounal organisms, and promotes a good soil structure. Humus also indirectly affects the plant uptake of micronutrients and heavy metal cations.

Organic compounds play an important role in soils , since humus accumulation is associated with the processes of soil formation. The soil content of humus and its composition are important diagnostic criteria that reflect the nature and direction of the dominating formation processes.

Many investigators used the distribution of soil organic matter and the metal ions associated with humic substances in soil as a more precise criteria for characterizing and classifying soils. Also, information about the nature of the binding of divalent metal ions by humic acids might be helpful to differentiate between humic acids from different sources.

Moreover, humus substances play a number of important functions in soil environment. In particular, their interaction with a variety of metal ions is of importance, such as mobilization or immobilization of metal ions in the soil.

Chemists have attempted to reveal the details of humus composition for many years, but despite considerable progress in characterizing various extracts, much still remains to be discovered. Since, the composition and structure of soil humus is complex and incompletely known.

The present study deals primarily with the status of iron in the alluvial soils in relation to the organic matter content of these soils. Also, determination of total carbon and total Fe contents of humic and fulvic acids as the main constituents of the soil organic matter.