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PROGRAMME

SOIL SUBSTANCES POSSESSING AGGLUTINATING CAPACITY

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Interaction of soil and plants is known to be of specific character. However, the nature of this phenomenon hasn't been determined up till now. In this connection extraction of soil was conducted by conventional methods used for extraction of lectins from plant material and its further estimation by the method applied in immunologic practice. Human erythrocytes of 4 basic blood groups in ABO system were used for carrying out an reaction.

It was ascertained that soil extracts possessed a capacity for agglutination. Since there is information about agglutinating activity of nonprotein substances, the extracts were boiled and treated proteolytic enzymes, agglutinating activity being reduced or disappearing. Low temperature ethanol fractionation was conducted in two stages. The compound received as a result had selective activity for four blood groups, the strongest agglutination being observed in 11(A) group. All these give us the reason to refer extracted to lectins.

The fact of the presence of lectins in soil suggests their probable participation on soil processes and needs a further study.