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THE INTERRELATION OF SOILS AND PLANT, ANIMAL AND HUMAN NUTRITION

By Dr. E. C. AUCHTER

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Our knowledge of many aspects of the interrelations between soils, plants, animals and human beings is limited, but some of the work that has been done in recent years gives us fascinating glimpses of the possibility and importance of further discovery. I would go so far as to say that we can now see the outlines of a whole new field of biological, or shall I say, agricultural, research. From what is already known, this phase of agricultural research should lead to a new orientation of agricultural thinking. Certainly it suggests profound implications for human welfare.

The interrelation of the soil, the atmosphere, the plant and the animal is a cycle in which the same materials are used over and over again. Minerals, moisture and certain constituents of the atmosphere under proper conditions of light and temperature enter the plants, and by them compounds of potential energy are made and the excess over their own utilization stored. When such products are eaten by human beings and animals, these compounds are broken down and reworked, energy becomes available for growth and movement, and parts of the compounds are again released into the air in the form of carbon dioxide and moisture or returned to the soil. Such compounds may then be taken up again by plants and rebuilt into new plant bodies. Thus there is an obvious interrelationship, the animals being dependent upon plants, the plants upon soil, and the soil upon parent rock and the materials that are returned to it through the decay of plants and animal products. Thus a great cycle or wheel of life.