THE WORLD FOOD PROBLEM

IT IS estimated that from one-third to one-half of the world's three billion people are chronically underfed. Most of these people are in the underdeveloped countries. In these countries crop yields are low, commonly only a third or less of the yields obtained in the more advanced areas. If the standards of living of these people are to be raised, crop yields will have to be increased. And there is every reason for thinking that this can be done if their resources, natural and human, are adequately developed. Poor soils and poor soil management are often largely responsible for these low yields. The skills of the soil chemist are indispensable for diagnosing the deficiencies of these soils and for prescribing the remedies. The soil chemist in the United States can contribute to the solution of these problems in two ways: first, as an investigator and, second, as a teacher and interpreter of the world's accumulated knowledge in this field. One of the most effective weapons in this country's arsenal for fighting the "Cold War" is its strong position in Agriculture, both in agricultural science and in the art of applying it.

Two aspects of this problem, closely related but not identical, are pertinent to soil chemistry. Many people are suffering from undernutrition or a shortage of calories in their daily diet. The remedy for this is more calories. In many other areas, malnutrition is more serious than under-nutrition. Malnutrition results from a shortage of or lack of balance of certain nutrients in the diet. The most serious and widespread form of malnutrition is due to a shortage of high quality proteins in the diet. This results in the disease called kwashiorkor. It is primarily an affliction of children and occurs most acutely when they are transferred from the milk of their mothers to a high starch diet. It is estimated that about one-half of all children in the underdeveloped areas in the tropics suffer from this deficiency. Malnutrition is often due to a lack of education since the necessary proteins may be available or could easily be produced if people were conscious of the cause of

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