WORLD POPULATION
AND
FOOD SUPPLIES, 1980

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The 5400 members of the American Society of Agronomy, which includes crop scientists, soil scientists, educators, teachers, extension workers, professional field specialists, and industrial agronomists, all are interested in the efficient use of natural and industrial resources for the production of food, forage, and fiber. The 56th Annual Meeting of the society, in association with the Annual Meetings of the Crop Science Society of America and the Soil Science Society of America, was held in Kansas City, Missouri, November 16 to 19, 1964. Approximately 550 technical papers were presented before the 19 subject-matter divisions of the societies and many of these papers will be published in the journals of the three societies. The talks given at a combined Special Session of the meeting are the basis for this special publication.

The theme of per capita food forecasts was proposed for the Kansas City meetings by the general program chairman and approved by the ASA Board of Directors a year earlier at the Denver meeting. As if by prearrangement, the week of the presentation of this program was designated as "The Freedom from Hunger Week" by the President of the United States.

Agronomists are deeply concerned with hunger and food availability, now and in the future. Only per capita figures have relevance, so demographic data become crucial. On a plot of world population with a linear time scale encompassing any realistic estimate of the age-of-man, we are now past the point where the population and, consequently, the food requirement curves are rising almost vertically.

The authors of the four papers in this publication give authoritative information on food and population for the next 15 years, during which period it appears that the world's per capita supply will be reasonably adequate, if satisfactory distribution can be accomplished. But, already, food exporting nations are developing resistance to food shipments on a subsidized basis. Unless birth rates decrease within the relatively near future, food requirements will exceed the most optimistic estimates of production capacity and population will be stabilized by increased death rates arising from natural causes that are historically known.

The editorial committee for this publication, composed of Drs. M. B. Russell, R. L. Davis, B. T. Shaw, M. Stelly, and
L. A. Richards, as chairman, assisted with the planning of the program for the Special Session. Dr. Shaw accepted the responsibility of being moderator of the program, outlined the subjects to be treated, and secured the speakers.

Riverside, California
January 1965

L. A. Richards, President
American Society of Agronomy, 1965
Modern civilization depends on an adequate supply of food to meet minimal requirements for man's normal health and activity. The present geographic and national locations of such food supplies are of the utmost importance, since deficiencies in any geographic area or in any sector of a population cause malnutrition, physical distress, and severe social disturbance.

The relation between food supply and civilization is an ancient one. Man's advances from the most primitive societies to the present have always been based on availability of sufficient foods to permit release from food-seeking to the mastery of natural resources, accretion of knowledge, development of the human mind, and the ethical and esthetic values of human nature.

Any sharp or prolonged deficiency in food supply is devastating in its effect on the people and society where such shortages occur. The records of man in prehistoric times, as well as those of recent millenia, clearly indicate this dependence on food supply.

The rapidly growing populations in nearly all parts of the world in recent decades have often been unrelated to food supplies. The ability of a region to produce more food is dependent in part on suitable land and climate, and in part on the application of modern science and technology to food production. There is strong evidence that population growth is now occurring in many regions without relating to the capacity to provide food.

The extensive presence of hunger and malnutrition, affecting millions of human beings in the world, must not be ignored, even by the most affluent of nations. The nations with advanced knowledge and social development should lead in a study of the relation between world population and food supplies.

When food-grain production stands still or chronically fails to keep pace with population growth, the specters of food shortage, recurring hunger and starvation become realities. Intelligent, reasonable solutions to these bitter problems must be found. The papers on this program represent a world-wide evaluation of the population-food outlook for 1980—just 16 years from today.

Washington, D.C.
November 1964

Howard B. Sprague, President
American Society of Agronomy