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Agricultural Engineers

The nation's professional agricultural engineering organization—the American Society of Agricultural Engineers—will celebrate a half-century of growth at its 50th annual meeting at Michigan State University, 23–26 June.

During the past decades, the efforts of these "engineers of agriculture" have been concerned with the engineering of tractors and other farm power equipment, the design of farm structures, the utilization of electric energy on farms, soil and water conservation and management, and the primary processing of agricultural products for the market.

The dispersion of agricultural production through millions of small units, instead of the intensive concentrations typical of most industries, generally obscures the scope and magnitude of the field to which agricultural engineering is applicable. The value of operating equipment on American farms is estimated at about $16 billion. Approximately 5.5 million barns and 20 million other permanent farm structures are worth something near $24 billion. The use of electric energy on American farms has increased about 1200 percent in the past 20 years, and the total annual consumption was estimated in 1955 at about 21×10^9 kilowatt hours.

American agriculture may be divided into three basic "power eras": before 1850, human power; 1850–1920, animal power; after 1920, mechanical and electric power. A direct consequence of this mechanization of our agriculture is that less than 13 percent of the population of the United States now produces all the agricultural products needed in this country (exports offset imports of commodities not grown in the United States), as compared with the 85 percent of our people required for agricultural production 100 years ago. The release of workers from American farms, accomplished largely through this mechanization of our agriculture, has provided manpower for industry, transportation, and other economic activities. This redeployment of manpower has made possible our relatively advanced economy and standard of living. Much of this development stems directly from the research and teaching of America's agricultural engineers.

A total of 45 colleges and universities in the United States and Canada offer professional curriculums in agricultural engineering. Of these schools, the offerings in agricultural engineering of 25 of them are accredited by the Engineers' Council for Professional Development. Although there are around 300 graduates in agricultural engineering each year from these 45 schools, the present and longer range outlook calls for at least 3 times as many in this expanding field.

The program of the 3-day 50th anniversary meeting of the American Society of Agricultural Engineers is built around the theme "Looking to the future." Technical sessions in the four major divisions of the society—power and machinery, rural electrification and processing, farm structures, and soil and water—will follow this general theme. In addition, general sessions will deal with the role of the scientist and engineer in food and fiber production in world agriculture, manpower and energy, and the advancing front of science.—HAROLD E. PINCHES, *Agricultural Research Service, U.S. Department of Agriculture, Washington, D.C.*