SCIENTIFIC EVENTS

AGRICULTURAL RESEARCH AND MARKETING IN THE BRITISH EMPIRE

A CORRESPONDENT of the London *Times* reports that the British agricultural and marketing acts of 1931 and 1933, which empowered the boards concerned to make provision for education and research, provided facilities which have never existed before for securing information on practical problems.

Simultaneously with the organization of marketing, the government has established the Agricultural Research Council to exercise general oversight over the field of agricultural research. The Marketing Boards, closely associated with the Department of Agriculture, are in a position to express the problems of the industries they represent and to provide funds for their investigation. The Agricultural Research Council is in close association with the Department of Agriculture and with the Department of Scientific and Industrial Research and the Medical Research Council, and is in a position to ensure that problems that may arise are effectively attacked.

For the past two or three years the Milk Marketing Board, in addition to setting aside substantial funds for the economic investigation of milk production costs, has had an arrangement with milk buyers under which a fraction of a penny a gallon on milk bought and sold in May is allocated to research. This arrangement has made available for research purposes an annual sum of rather under £10,000. With this money investigations of practical import to the milk industry have been set on foot, after consultation with the Department of Agriculture and Agricultural Research Council. A large-scale investigation into methods of disposal of dairy effluents is being made by the Department of Scientific and Industrial Research; work on contagious abortion in dairy cattle is being carried out at certain centers under the supervision of the Agricultural Research Council; dairy cow nutrition and problems of cheese manufacture are being studied at the National Institute for Research in Dairying, Reading; and certain technical investigations of milk quality and safety are in progress at the London School of Hygiene.

In the pig and bacon marketing schemes research responsibilities are undertaken by the Bacon Development Board, which has been established only recently. One of the first acts of the board was to appoint a research officer who had extensive experience of research matters as well as considerable acquaintance with the practicable problems of the pig industry.

The board has already disbursed research money in certain directions. A food-recording scheme for pigs, in charge of the University of Cambridge, is being financed, for example, and a large-scale experiment designed to ascertain the effect of different transport distances on carcass quality is being made.

In the Sugar Industry Act the obligation is placed on the Sugar Commission to prepare and submit to the Minister for his approval a scheme of education and research into matters affecting the growing of home-grown beet, or the manufacturing, refining, marketing or consumption of sugar. The cost involved in the carrying out of such a program will be met by levies on the refiners, on the British Sugar Corporation and on home-grown beet growers, according to the extent of their interest in the scheme; it is roughly estimated that the maximum financial provision which will thus be made available may be in the neighborhood of, say, £70,000 a year. Hitherto the beet-sugar factories have been providing about £5,000 a year for education and research purposes, these funds being administered by a joint committee of the factories and the Ministry of Agriculture. The work has included research into questions of cultivation, manuring, pests and diseases, and seed strains, together with a scheme of prizes to growers.

AIRPLANE WEATHER OBSERVATION STATIONS

AIRPLANE weather observation stations have been added to the network that provides information on conditions in the upper air for use in making the daily weather forecasts, at Miami, Fla., at Sault Sainte Marie, Mich., at Salt Lake City, Utah, and at Oakland, Calif.

Each year since 1931, when kites gave way to planes for the daily sounding of the air, there has been a steady increase in the number of stations equipped to make airplane observations. The Army, the Navy and the U. S. Department of Commerce cooperate with the Weather Bureau in this work.

At the 12 airplane weather observation stations maintained by the Weather Bureau—Murfreesboro, Tenn.; Omaha, Neb.; Cheyenne, Wyo.; Billings, Mont.; Fargo, N. Dak.; Oklahoma City, Okla.; El Paso, Tex.; Spokane, Wash., and the four new ones—a pilot in a suitably equipped plane, furnished under government contract by a private flyer or flying company, goes up 16,500 feet into the air each morning, if possible. The plane carries an aerometeorograph—an instrument that automatically records the pressure, temperature and humidity of the atmosphere through which it passes. The pilot notes certain conditions, such as the time he enters or emerges from clouds, precipitation, ice formation on the plane, bumpiness