The third session of the Commission for Agricultural Meteorology of the World Meteorological Organization, was held in Toronto, Canada during July 9 to 27, 1962. Previous sessions were held in Warsaw in 1958 (W.M.O., 1958; Beugher, 1960) and in Paris in 1955. The Meteorological Branch of the Department of Transport was assisted by the Canada Department of Agriculture, the Canada Department of Forestry and the Ontario Government in acting as hosts for the Canadian Government.

Officers of the session were Mr. P.M.A. Bourke (Ireland) President and Dr. M.S. Kulik (U.S.S.R.) Vice-President. Two working committees were set up under the chairmanship of Mr. L.P. Smith (United Kingdom) and Mr. M.L. Blanc (U.S.A.) Secretariat. Assistance was provided by Dr. K. Langlo and Mr. B. Thorslund from W.M.O. headquarters (Geneva). Sixty-eight delegates and advisors represented 32 countries at the meeting. Official observers from FAO, International Society of Biometeorology, International Commission for Irrigation and Drainage, International Geographical Union, and International Union of Geodesy and Geophysics also attended the meetings.

The Commission, essentially an international work planning and coordination group, is one of 8 technical bodies of the W.M.O. The main responsibility of the Commission is to provide member nations and U.N. organizations with guidance in connection with agricultural problems that involve weather factors. This guidance is accomplished through careful study of problems by Commission members either in ad hoc committees during session or, in the case of more weighty problems, by appointed working groups which deal with problems between sessions.

Working groups consist of 3 to 5 energetic and devoted members who conduct most of their work by correspondence. Only rarely are meetings of the groups held. Occasionally certain members may have the good fortune to get together to discuss committee problems during trips for other purposes. The responsibility of working groups is not to do research, but rather to study problems and make recommendations. Such a study usually involves a review of world literature which, together with a bibliography may be published as a W.M.O. Technical Note. As such, it provides valuable reference material for anyone undertaking research or providing a service in the particular field. From such literature reviews and surveys of past and current activities, a statement on the present state of knowledge on certain topics may emerge. Other products of committee work are statements of the most practical method of providing a specific service, or the shortcomings of, and direction in which research might be steered. Several important topics undertaken by working groups established at the Warsaw meeting were concluded during C.Ag.M.-III in Toronto and recommended for publication as W.M.O. Technical Notes. These include: A guide to agricultural meteorological practices; The influence of weather conditions on the occurrence of apple scab; protection against frost damage; and meteorological aspects of windbreaks and shelter-belts.

Other Working Groups which completed and published reports before C.Ag.M.-III considered such practical agricultural meteorological problems as: forecasting for forest fire services (W.M.O., 1962); the meteorological aspects of the storage of fruit

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Many important problems of current interest to agrometeorologists were discussed during the conference. Several of these could not be resolved and were considered important enough to warrant further study. Working groups were established to consider them and report back to the commission at its next meeting. These problems included: meteorological factors affecting the epidemiology of wheat rusts; meteorological factors affecting the oriental fruit moth and the codling moth; plant injury and reduction of yield by non-radioactive air pollutants; the guide to agricultural meteorology and technical regulations (this group is to deal with problems not resolved during the Session). They are also to keep The Guide under continuous review and consider all amendments and additions as put forward by members of the Commission; agrometeorological topoclimatology; meteorological aspects of the storage of cereals and other small seed crops; practical soil moisture problems in agriculture (this group is to review the present state of knowledge of the moisture balance in the soil including techniques for measuring soil moisture both directly and indirectly by budget and other meteorological means; to draft a guide on meteorological aids to the efficient use of water for irrigation; to select and define current practical problems on which research should be undertaken or continued); meteorological factors affecting the adaptation and production of lucerne; meteorological observations in animal experiments; and syllabi for instruction in agricultural meteorology.

Not all of the Commission's work is done by Working Groups however. A great number of worthwhile suggestions are made in the form of resolutions, recommendations and decisions by ad hoc committees meeting during the Sessions. Recommendations made at the 3rd Session included items dealing with: weather influences on diseases of livestock; research in connection with the meteorological aspects of wind breaks and shelter belts; guide to agricultural meteorological practices; long-range forecasting; comparison of instruments and methods for computing evaporation and evapotranspiration; routine agrometeorological observations in forested areas; collaboration between meteorology and agricultural sciences; meteorological observations at agricultural stations; agroclimatology of arid and semi-arid areas; and information regarding progress in agricultural meteorology.

Of particular interest to I.S.B. members were the discussions concerning the proposal by Professor Gruber covering the Triennium Bioclimaticum Tropicale. It was noted that there are considerable differences between the problems suggested in this proposal and the problems faced by physicists and tackled during the International Geophysical Year. During I.G.Y. it was desirable to obtain simultaneous observations around the Globe in order to study certain physical and astronomical phenomena occurring simultaneously. There does not appear to be a similar scientific justification for taking simultaneous biological observations on such a grandiose scale. The plan received considerable sympathy but it was felt that progress was being made towards the objectives of the plan, both at national and international levels, as fast as urgency demanded and economic and human resources could meet this demand. The deliberations of the Commission indicated that past, present and future research programs of various nations and international organizations are striving towards the goals set forth by Professor Gruber.

Although the deliberations of the Commission will be summarized and published by W.M.O. in a few brief and carefully worded recommendations, resolutions and decisions, the 3 weeks during which these were discussed and prepared provided an exceptional opportunity for delegates to become acquainted with each other and with problems related to their work. During the discussion of technical problems, delegates became aware that many countries are faced with the necessity of conducting research on applied problems with a minimum of resources of both man power and capital. It was very noticeable that good applied research was being done with simple procedures capable of management by unskilled assistants. Discussions also lead to a much clearer understanding of what the important problems are and who is undertaking or best equipped to undertake research in certain fields.