FOREWORD

It is estimated that approximately 15 million citrus trees in South American countries have been destroyed by tristeza, a virus disease which began its ravages in Argentina in the early 1930's. The same disease, known by the name "quick decline," was discovered in California in 1939, and within a few years had caused the destruction of some one-half million citrus trees. In other citrus-producing countries, particularly in the Mediterranean area, where nearly all citrus trees were growing on tristeza-susceptible rootstock varieties, the devastating effects of this swiftly spreading disease were watched with alarm. Consequently, the plant pathologists in the affected citrus areas began to work somewhat as an international team to learn more about this threatening disease and to find means of combating it. Research workers in these countries freely exchanged the knowledge obtained from their observations and studies. Investigators in citrus areas still free of the disease kept themselves well informed of developments so that they could recommend changes in citricultural practices which would lessen the losses from tristeza if and when it appeared in the citrus plantings of their countries.

Despite the great losses caused by this disease, the advent of tristeza has had a good effect in at least one direction. This may offer little consolation to the growers who had to watch helplessly as their financial investments and long years of labor were wiped out. But the fact remains that, because of tristeza, research on citrus virus diseases has expanded, and progress is being made more rapidly than ever before.

The increase of research in this field has clearly demonstrated two facts: 1) that no virus disease of citrus can be considered to be solely a local problem, and 2) that progress in understanding and combating these diseases will come faster through cooperative efforts at an international level. Most of the citrus virologists and horticulturists throughout the world recognize these facts, and some among them recognize also the desirability of meeting together in conference to exchange ideas and information.

The year 1957 provided an opportunity to hold such a conference as a part of the celebration of the 50th anniversary of the University of California Citrus Experiment Station at Riverside. The first announcement regarding this Conference was sent out on April 10, 1957. Although the time between this date and the November 18th opening of the Conference was short, particularly from the standpoint of foreign workers who desired to attend, there was much interest among citriculturists throughout the world. Numerous individuals were unable to make arrangements for coming to the Conference and some of the citrus-producing countries were not represented. However, ten countries other than the United States sent official delegates. These were Australia, British West Indies, Egypt, France, India, Israel, Morocco, Peru, Philippine Republic, and South Africa. Graduate students, now in the United States, from some of these countries as well as from Panama and The Netherlands brought to the Conference a total of twenty-one persons from outside the United States. Numerous investigators from Arizona, Florida, and Texas were present, and California was well represented by workers in various fields of plant pathology, plant virology, and citriculture.

The program consisted of formal presentation of thirty papers, all of which are included in this volume of Conference Proceedings. One evening was devoted to a symposium on citrus budwood certification. Additionally, there was 1) a one-day tour of the experimental plantings on the grounds of the Citrus Experiment Station, 2) a two-day excursion to commercial citrus plantings and experimental plots in

Ventura County, and 3) a one-day trip to the Coachella Valley. A banquet attended by 139 persons was highlighted by an address by Professor Robley C. Williams of the University of California Virus Laboratory at Berkeley on the topic "Some newly found properties of plant viruses."

Most of the delegates from out-of-state extended their visits after the Conference for consultation with technical workers in the various departments of the Citrus Experiment Station, and this proved mutually advantageous for all concerned. Some of the delegates from foreign countries were able also to visit citrus research institutions in Arizona, Florida, and Texas before returning home.

At a business session during the Conference, an International Organization of Citrus Virologists was formed. J. M. Wallace, Plant Pathologist, University of California Citrus Experiment Station, was elected chairman of this new organization. Participants in this Conference were in complete agreement as to the need for such an organization for furthering our knowledge of citrus virus diseases. The chairman was requested to appoint appropriate committees to function in this field at an international level and to plan future conferences.

In organizing the Riverside Conference, invitations were extended to all known citrus virus disease investigators or interested workers in the field of citriculture. Some who should have received invitations did not, for the reason that they were not known to the Organizing Committee or were overlooked in preparation of the mailing list. The Conference was therefore given wide publicity in various scientific journals. Announcements of the Conference were sent to directors of research institutions and to agricultural ministries in countries where citrus is grown. Those who failed to receive any reports either before or since the Conference, and who are interested in the objectives and future meetings of the newly formed organization, are invited to so inform the chairman.

The papers presented at the Conference, and five additional papers, are published in this volume. In the editing of these papers some revisions were made, particularly for the sake of clarity, brevity, and improved word usage. Because of the time required for assembling the manuscripts and preparing them for publication, individual contributors were consulted only when major editorial changes were involved.

Regarding nomenclature of citrus species and varieties, the specific names and authorities accepted by Swingle[1] have been used where authors have included the Latin binomials of the various citrus types except in instances where no specific names were listed by Swingle. For such citrus types as Rough lemon, Palestine sweet lime, Rangpur lime, and Mediterranean sweet lemon, the classification and nomenclature of Tanaka[2] have been used. The classification of these four citrus types was discussed recently by Hodgson.[3]

The reader should keep in mind that the papers included in these Proceedings were prepared for semiformal presentation during the Conference. Some of them are for the most part progress reports. Others are personal evaluations of specific virus problems. Because of this, the reader may find differences of opinion or interpretation between two writers reporting on the same virus disease. The opportunity to have such differences recorded and thus available for comparison and study will, we hope, lead eventually to a better understanding of the virus problems in the field of citri-

[1] Swingle, W. T. The botany of citrus and its wild relatives of the orange subfamily (family Rutaceae, subfamily Aurantioideae). Chapter IV (pp. 129–474) *in* The Citrus Industry, vol. I. Edited by H. J. Webber and L. D. Batchelor. University of California Press, Berkeley and Los Angeles. 1943.

[2] Tanaka, T. Species problems in citrus. (Revisio Aurantiacearum IX.) 152 pp. Japanese Soc. Promotion Sci. Uneo, Tokyo. 1954.

[3] Hodgson, R. W. Citrus introductions at U.C.L.A. California Citrograph **40**: 164, 172–176. 1955. (*See also* Citrus Leaves **36**(8) : 18, 32. 1956.)

culture and bring additional progress in our efforts to prevent or control citrus virus diseases.

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