

Mr. Redington further states that this refuge, which lies just south of the California-Oregon line, will supplement the Clear Lake refuge in California, just east of Tule Lake, and the recently established upper Klamath refuge, on the west shore of Klamath Lake, in Oregon. A year ago it was announced that because of lack of water a reflooding program on lower Klamath Lake, west of Tule Lake, would have to be abandoned. The establishment of the refuge, therefore, on Tule Lake will, in a measure, offset the loss of possible sanctuary caused by the abandonment of the lower Klamath project.

It is further stated that because of the encroachment of industrial and agricultural development the wild fowl have in many areas throughout the United States lost their former homes and stopping places, and that the government in its obligations under the migratory bird treaty with Great Britain is steadily working for the reestablishment of suitable water areas so that the wild fowl may regain something of what they have lost. The setting aside of such areas strategically located along the principal lines of migration will probably do more for the future welfare of the wild fowl than any other one measure.

SUMMER MEETING OF THE AMERICAN SOCIETY OF PLANT PHYSIOLOGISTS

At the invitation of the Purdue section, the summer meeting of the society was held at Purdue University, Lafayette, Indiana, on September 4 and 5. About fifty were in attendance, mostly from the states of Ohio, Michigan, Illinois, Indiana and Wisconsin.

On September 4, a program of short papers was given by members of the Purdue staff, explaining investigations and field plot work. Mr. J. F. Trost discussed the response of corn hybrids to fertilizers. Mr. L. P. Miller gave the results of his studies on the effect of manganese deficiency in sand culture. Dr. E. B. Mains reviewed the results of studies concerning physiologic specialization in the rusts. Mr. K. D. Doak gave the results of his investigations concerning the effect of mineral nutrition on the rust reaction of wheat. Dr. J. H. MacGillivray summarized the results of his studies concerning tomato quality. Professor L. P. Cullinan and Mr. J. L. Sullivan gave the results of their studies concerning the nutrition of apple trees. Professor P. H. Brewer described methods for the purification of the virus of tomato mosaic. Mr. L. M. Bushnell described the dominant soil types in the vicinity of Lafayette. Professor S. D. Conner outlined the agronomy field plot experiments. Following a dinner held at Lincoln Lodge, Dr. C. A. Shull discussed the present status of the journal and plans for its future development.

September 5 was spent in field trips. In the morning the soils and crops experimental farm east of Lafayette and the animal husbandry farm north of West Lafayette were visited and breeding and fertility experiments with corn were studied. Following a lunch at the Fowler Hotel, Professor E. J. Kraus discussed the relationship of plant physiology and applied botany. In the afternoon the orchards of the horticultural department west of Lafayette were visited and pruning and fertility experiments were studied.

APPROPRIATIONS FOR RESEARCH AT CORNELL UNIVERSITY

THE Heckscher Foundation for Research at Cornell University, on recommendation of its council and the approval of the University Board of Trustees has appropriated \$70,294 for forty-two separate research projects to be conducted this year.

This year's use of the income of the fund which Mr. August Heckscher established at Cornell in 1920, marks a departure from the previous policy. While providing for research in the physical and biological sciences as well as the humanities, the major portion of this year's funds will be devoted to researches in the general field of radiation. Some of the researches thus provided for are purely physical studies of the nature of radiation, some make use of radiations of various kinds in studies of the structure of matter and some deal with the effects of radiation on chemical reactions and on certain biological phenomena.

In addition to the previously announced researches in the field of radiation, the following grants in the natural and exact sciences have been made to members of the Cornell faculty for the current year:

Professor J. Papish. The occurrence, distribution and association of the rarer chemical elements.

Professor A. C. Gill for a petrographic investigation of the Tully limestone.

Professor J. B. Sumner for materials and assistance in connection with a study of the preparation and properties of crystalline urease.

Professor J. A. Dye for materials and assistance in a study of tissue respiration and endocrine functions.

Professor G. C. Embury to aid him in his studies of the rate of growth of wild trout in streams.

Professor Cornelius Betten for aid in the preparation of a manuscript dealing with the Trichoptera.

Dr. Grace H. Griswold for assistance in the preparation of a manuscript on chalcidoid parasites of aphids.

Professor L. H. McDaniels for assistance in a histological study of the phloem tissue of woody plants.

Professor Allan Nevins for assistance in a study of the history of American railways.