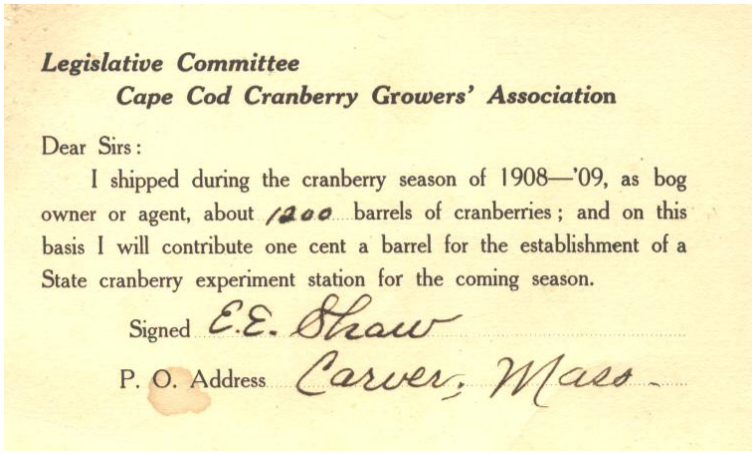
The origin of the Cranberry Station may be traced back to the 1905 summer meeting of the Cape Cod Cranberry Growers Association (CCCGA). Professor H. T. Fernald of the Massachusetts Agricultural College in Amherst, now the University of Massachusetts at Amherst, was asked to speak to that group. He talked about certain insects, including cranberry fruitworm and black-headed fireworm, which were said to have very seriously reduced the crop every year in the early history of the Massachusetts cranberry industry. As a result, growers urged further study on this subject and Henry Franklin was chosen for the job. Years later he recalled.. "As a result of all this, arrangements were made with the Experiment Station [the Agricultural Experiment Station based in Amherst] to send a man into the cranberry section to make a survey of the cranberry insect problems during the growing season of 1906. As I was taking the graduate course for the Ph.D. degree at the College at the time, majoring with the Fernalds in entomology, and seemed to be in need of material for study in the field of economic entomology, I readily fell in with Dr. Fernald's suggestion that I go to the Cape on this mission. So I spent the summer of 1906 on the Cape Cod bogs and the work there was continued through the summer of 1907. I found the work difficult at times, partly because I was working alone and partly because means of transportation were often inadequate, much walking over sandy roads being necessary."



Legislative Committee
Cape Cod Cranberry Growers' Association

Dear Sirs:

I shipped during the cranberry season of 1908—'09, as bog owner or agent, about 1200 barrels of cranberries; and on this basis I will contribute one cent a barrel for the establishment of a State cranberry experiment station for the coming season.

Signed E. E. Shaw

P. O. Address Carver, Mass.

Spurred by interest in the cranberry insect survey work of Franklin, CCCGA petitioned the Legislature to fund a permanent facility for cranberry research. In 1909, in anticipation of a positive outcome, the Massachusetts Agricultural Experiment Station director appointed Dr. Henry Franklin to be in charge of the cranberry program. CCCGA solicited a 1 cent per barrel pledge from growers on their 1908 crop to fund Franklin's position. In 1910 the legislature made $12,600 available for the purchase of land, including a cranberry bog, and the construction of a building which was completed in 1911. And thus, the Cranberry Experiment Station of the Massachusetts Agricultural Experiment Station began its story, with Henry Franklin as Director.

In the early years, Franklin was the sole University scientist at the Station, aided by various technical support staff and a research scientist stationed in East Wareham by the Bureau of Plant Industry, U.S. Department of Agriculture. The USDA post was held by Dr. Neil E. Stevens. Stevens was instrumental in the development of the data for the cranberry Keeping Quality Forecast, which remains in use today. Later, Dr. Herbert F. Bergman was assigned to the Station by the USDA, continuing the tradition of studying the impact of

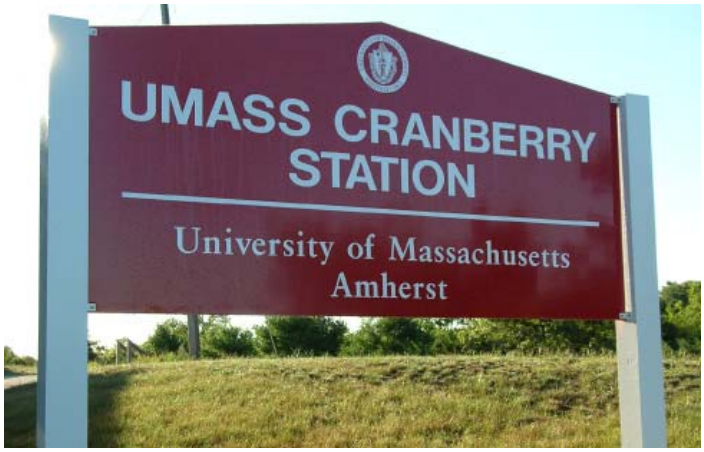
weather on cranberry with his definitive work on cranberry oxygen deficiency stress during the winter flood. Bergman was the lead scientist for the Massachusetts portion of the USDA cranberry breeding program initiated in 1929 in response to an outbreak of false blossom disease. As a result of that breeding program, that also included plots in New Jersey and Wisconsin, six hybrid cultivars were named and released, 'Beckwith', 'Wilcox', and 'Stevens' (named for Neil Stevens) in 1950 and 'Pilgrim', 'Franklin' (named for Henry Franklin), and 'Bergman' (named for Henry Bergman) in 1961.

In response to a need to predict and prevent frost damage on the crop, Franklin, a tireless researcher, began a study of factors in the weather and in the plants that were related to frost injury. By 1920 he had developed a workable frost warning service that included a prediction of the minimum on-bog temperature for that night and an indication of what temperatures could be tolerated by the plants based on their stage of growth and development. The impressiveness of this achievement, for one whose training was not in meteorology or in plant physiology, but rather in entomology, can not be overemphasized. With only minor modifications (many by Franklin himself during the 1930s and 1940s), the formulae used to predict frost events on Massachusetts cranberry bogs remain in use today by CCCGA's Frost Warning Service. Franklin remained as Director of the Cranberry Station until his retirement in 1952. In a career spanning more than forty years, Franklin made huge contributions to the science of cranberry entomology, pioneering the use of water management and sanding for insect control, laying the foundation for insect monitoring programs that remain the mainstay of integrated pest management (IPM) programs today, establishing economic thresholds for insect damage on cranberry, and authoring the definitive cranberry insect guide of its time, 'Cranberry Insects of Massachusetts'. Upon Franklin's death, Chester Cross (Station director from 1952-1981) wrote: "I think one of Dr. Franklin's first rules for though and action was: 'Take no man's word or oath' ..... To any serious problem that came his way, he fastened his mind with a tenacity that excluded all lesser things like time, meals, or the convenience of others. Thus he worked on the frost problems of the cranberry growers and developed an excellent system for predicting minimum bog temperatures. It mattered not a whit that his

training had been in entomology (where he became the world authority not only on cranberry pests but also on the bumble bee), for he knew that by persistent application day and night, week days and weekends, that any problem could be solved by one determined to solve it, and he did. "

The 1950s through the 1980s saw the advent of modern practices in cranberry growing. Dr. Chester Cross (Station director 1952-1981) continued the work of defining weather factors that could impact crop yield. Dr. John 'Stan' Norton was instrumental in the introduction of the use of sprinkler irrigation to Massachusetts bogs, particularly their use in frost protection. Dr. Bill Tomlinson continued Franklin's work in entomology. Dr. Karl Deubert and Dr. Robert Devlin contributed research in the areas of biochemistry and plant physiology, respectively. Throughout this period, Irving Demoranville served as extension horticulturist working on physiology, weed science, and fertility and continuing Franklin's frost research. 'Dee' ended his 45-year career at the Station as Director, serving from 1981-1996. This group of scientists made two major outreach contributions in the 1970s: producing the bulletin 'The Modern Art of Cranberry Cultivation' and convening an informal gathering of colleagues from around the country and Canada for the purpose of sharing ideas and science. The bulletin has been revised each decade and has become the premier extension publication of the Station: 'Cranberry Production: A Guide for Massachusetts'. The informal gathering of colleagues is now known as North American Cranberry Research and Extension Workers Conference and is held every two years, serving as the opportunity for cranberry researchers to share the results of their research, exchange ideas, and plan cooperative research projects.

In its 100 year history, the Cranberry Station and its scientific staff have seen many changes in cranberry growing as a result of its research efforts. Some of the major milestones include the development of the frost forecasting system and determination of cranberry hardiness levels, insect monitoring and modern IPM programs, introduction of modern cultivars, the use of biological control agents for cranberry pests, modern fertility management programs, effective weed management combining cultural control with post-emergence herbicide use, and effective disease prediction and management programs.



As we begin our second 100 years, the Station faculty and Director continue the tradition of providing excellence in research and outreach to the cranberry industry with programs focused on the development of the most effective and sustainable practices for pest, nutrient, and water management. Dr. Anne Averill is using insect behavior to design reduced-risk management strategies. Dr. Frank Caruso identified Phytophthora root rot as a significant cranberry disease and is currently focusing on the biggest disease problem, fruit rot. Dr. Carolyn DeMoranville (Station Director since 2002) provides research and outreach in cranberry nutrition and horticulture, and with Dr. Hilary Sandler, is currently revising the Massachusetts Best Management Practices Guide. Dr. Sandler is also investigating ways to improve weed management, especially for dodder. Dr. Peter Jeranyama's work in plant physiology will provide growers with tools to efficiently manage irrigation in the future.

In our Centennial year, we will once again be joined by a USDA scientist from the Agricultural Research Service (ARS) charged with the mission of developing best practices for water conservation and water quality enhancement. We look forward to continuing to support a vibrant and profitable cranberry industry in Massachusetts for many years to come.