

Research Advances Division



Iowa State workers in textile research study fibers to determine the effects of finishes and other manufacturing treatments

RESearch, the behind-the-scenes activity which is the basis of scientific advancement, has played an important part in building the national reputation of Iowa State's Division of Home Economics.

Each of the nine departments in the Division conducts a graduate program leading to the master of science degree, and the Department of Foods and Nutrition offers the degree of doctor of philosophy. All the departments provide minor work toward the doctorate.

Since the initiation of graduate work in 1915, 687 masters and 14 doctors degrees have been granted by Iowa State. By departments they are: master of science, applied art, 27; child development, 69; home economics education, 214; home management, 57; institution management, 27; household equipment, 48; textiles and clothing, 104; and technical journalism, 10. In foods and nutrition 131 masters of science and 14 doctors of philosophy degrees have been conferred.

With the reorganization in the Division of Home Economics in September, 1944, when Dr. P. M. Nelson became the fourth dean of Home Economics, Dr. Pearl Swanson of the Foods and Nutrition staff was appointed Assistant Director of the Iowa Agricultural Experiment Station in charge of the Home Economics Research. She is responsible for the coordination of the efforts of the several departments conducting research experiments which are financed through the experiment station.

There are 12 research projects in progress in the Department of Foods and Nutrition. Four of them are outgrowths of the original project designed to study the nutritional status of the college woman. This project, initiated in 1935, is conducted with the cooperation of women from the Universities of Iowa, Nebraska, Ohio, and Minnesota; and Kansas State College. It is proposed this year to conclude the

project and summarize the findings in a monograph.

The biological value of dehydrated eggs, the vitamin C and thiamin content of Iowa apples, the nutritive value of a synthetic diet using autoclaved pork muscle as the sole source of protein, and the changes induced in the tissues of the animals fed this ration are other projects under Dr. Swanson's direction.

A special project, requested by the Office of the Quartermaster Corps of the Army in Chicago, is the study of the contribution which dried egg whites may make to army life raft rations.

A cooperative research project between the Departments of Foods and Nutrition and Zoology and Entomology was inaugurated to provide directions for using rough fish and wild life to meet shortages and high ration point costs of meats. A 260-page bulletin, "Eat Iowa Fish," summarizes results of the fish research. Muskrat, raccoon and other wild animals found in Iowa are included in the wildlife experimentation still in progress.

The research laboratory in the Department of Textiles and Clothing has been devoted to research for war work, but workers have started a series of studies measuring some of the physical properties which may promote new uses for feathers. The present study of animal fibers may lead to a quick, accurate method of measuring certain qualities of wool fibers.

Graduate students in the Applied Art Department do research and creative designing. The curtailment of the importation of art objects from Europe has increased the opportunities for graduate designers in this department.

Two projects are under way in the Department of Household Equipment. One is on poultry cookery, in cooperation with the Foods and Nutrition Department. In a second project the effect which the storage of frozen fruits and vegetables in the refrigerator has upon palatability and nutritive value is being studied by the Departments of Foods and Nutrition and Household Equipment in cooperation with the Bureau of Human Nutrition and Home Economics, United States Department of Agriculture.

A study in the Department of Home Economics Education is concerned with the needs of different students in relation to curriculum planning for specific high school groups, teachers in training and adult groups. The department's plan for the future includes research to develop new methods of teaching adults.

In the Department of Child Development a study is being made of the relationship between factors in the child's out-of-school environment and his behavior in his own social group. Future research students may study the effect which changes in home life during the war have had upon children.

Two types of research are under way in the Department of Institution Management. Both are concerned with a phase of dining hall food service and management.

In the Department of Technical Journalism an analysis is being made on published child development material and parents' requests for child development information. A survey will determine how published material meets the readers' needs and how it may be improved. Consumer surveys on new products, market and packaging research and the testing of radio and advertising sales appeal are slated for postwar studies.