

NEWS



New York State Agricultural Experiment Station
Cornell University, Geneva, NY 14456-0462

FOR RELEASE: July 10, 1992

TWO GENEVA STATION SCIENTISTS RETIRE

Geneva, NY—Dr. Jerome P. Van Buren, professor of biochemistry, and Robert F. Becker, associate professor of horticulture, retired from Cornell University's New York State Agricultural Experiment Station, Geneva, on June 30, 1992.

Van Buren was associated with the Department of Food Science and Technology and Becker with the Department of Horticultural Sciences.

Van Buren's research dealt with the application of biochemistry to quality factors in fruits and vegetables. He studied firmness, color, and nutritional value of these foods. Results of his research have been published in more than 100 scientific articles. Van Buren is a world authority on the chemical basis of firmness in fruits and vegetables. Much of his work is on the pectic substances that act as cementing blocks between plant cells.

His principal research dealt with ways of modifying tissue pectin or heating conditions so as to retard or accelerate tissue softening during heating. He showed that esterase enzymes in the tissue could be induced to change the tissue pectin. This slowed softening. Salts and high pH were shown to increase the rate of softening. These findings benefited the canning and freezing industry. Much of his work was with snap beans, a major industry in New York state.

His work with tannins helped establish the structure of these materials in apple. He demonstrated that tannins cause hazing in juice. He worked closely with juice manufacturers in helping them produce clear, stable juices.

His most recent research has been on enzymatic factors that cause softening of apples during storage.

Van Buren has also studied nutritional qualities in canned vegetables and soybean products. Vitamin retention with modern canned goods was found to be comparable to home cooking. He determined that nutritional quality of soy milk protein was retained best when minimum heat was used. This research led to developing dry soy milk that could be used for infant feeding.

Besides his research, Van Buren taught a course on the chemistry of food colors on the Ithaca campus and regularly presented the fruit and vegetable lectures in the general food chemistry course. He has been a consultant for the U. S. Public Health Service, taking part in its international food and nutrition survey. His country of specialty was Malaysia.

His sabbatical leaves were spent at the Swiss Federal Institute of Technology, Zurich; the Dutch Agricultural University, Wageningen; the Imperial College, London; and the British Institute for Food Research, Norwich.

Becker began his career with Cornell University in September 1959 as an Assistant County Agricultural Agent in Wayne County. He specialized in extension work on vegetables. From 1960 until 1970, he was located in Canandaigua, Ontario County, as a Regional Extension Specialist. In 1970, Becker moved to the Geneva Station as an Extension Specialist and, in 1986, he was promoted to an associate professor of horticulture.

An excellent communicator, Becker is recognized throughout the country for extension work with the New York vegetable industry. He maintained contact among processors, growers, and researchers, and developed many research demonstration plots with vegetables in cooperation with various growers and scientists. Among his many achievements was development of an annual Processing Vegetable Conference which, in recent years, was expanded to a state-wide vegetable conference for both fresh market and processing crops.

When promoted to associate professor at the Station, Becker concentrated his applied research activities toward projects in the areas of soil management, tillage, seedling plant establishment, variety evaluation, and weed management. He also continued to strengthen the liaison between the Station and the state's processing vegetable industry.

Becker has served on numerous national, College, and State committees and has been awarded many honors. Included among these were the Distinguished Service Award from the National Association of County Agricultural Agents and the Award of Excellence from the American Society of Horticultural Science.

Becker is known, among other things, for writing timely reports and bulletins so that extension information on processing vegetable crops is kept current for representatives in the industry. Aside from his official work at the Geneva Station, he has a great interest in heirloom vegetable varieties and has worked closely with the Living Historic Farms and Agricultural Museums Association.

During his retirement, Becker will continue close ties to the Station and the vegetable industry. He will serve as a resource and provide support for the vegetable field staff. He will supervise work on snap bean, sweet corn, cabbage, and tomato variety evaluation programs and will continue to participate in the planning process for the 1993 New York State Vegetable Conference.

He received both his bachelor and master degrees in horticulture and plant pathology from the University of New Hampshire. He did post-graduate work at the University of Missouri. Before joining Cornell, Becker was a captain in the U. S. Army for five years.