KUO-TAN LI RECEIVES PERRINE SCHOLARSHIP AT CORNELL

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by Linda McCandless

GENEVA, NY: Kuo-Tan Li is a budding pomologist who will tell you orchids are easier to raise than apples. Nonetheless, it is for his "outstanding work in pomology" that the fourth-year Cornell University graduate student received the 1999 Perrine Scholarship. Hugh Price, chairman of the horticultural sciences department at the New York State Agricultural Experiment Station in Geneva, NY, presented the award to Li in December on behalf of the Perrine family. The scholarship was established by David Perrine (Cornell ’22) in 1993 to support pomology research at Geneva. The $2,000 award supports Li’s Ph.D. research program and educational expenses. Li is the fifth recipient of the award.

"Kuo-Tan's research on summer pruning has provided valuable fundamental and practical information on the impact of an important cultural practice on tree performance and fruit quality," said Li’s faculty advisor, Alan Lakso, professor of horticultural sciences at Cornell. "Based on his studies, we hope to help apple growers optimize this practice to give the best combination of yield and fruit quality. Kuo-Tan is a deserving recipient of the Perrine Award."

Li came to Cornell in August 1996 to pursue a Ph.D. in Pomology. Cornell’s international reputation attracted him, and he was further encouraged by his advisor in Taiwan, who spoke highly of Lakso’s work in fruit crop physiology. Li has been studying the impact of summer pruning on photosynthesis and carbohydrate balance in apples for his thesis.
"Summer pruning is valued for its practical application as well as its academic interest," said Li. Prior work indicates that summer pruning, an orchard practice that improves fruit color, could induce a significant reduction in whole-canopy photosynthesis rate. But results on fruit yield and quality have been "inconsistent," according to Li, and indicate a "complexity" on the carbohydrate demand side. Since this summer, he and Lakso have been working on whole-canopy gas exchange as well as root growth and will examine return bloom next spring.

"We hope the results will enable growers to regulate their pruning practices and orchard management techniques to maintain consistent yield and high fruit quality, enhancing profitability as well as sustainability," said Li.

Li has always been interested in horticulture. He received his B.S. in Horticulture from National Chung Hsing University and his M.S. in Horticulture from National Taiwan University in Taipei. He has worked in hydroponics, nursery management, landscape design and execution. He raises orchids, and maintains a collection of 100 plants at his parent’s house in Taiwan, as well as 20 to 30 in Ithaca.

Li expects to receive his degree in the summer of 2000 when he plans to either return to Taiwan to find a job, or continue with a postdoc in Europe.

THE PERRINES WERE ORCHARDISTS

David Perrine was a prominent orchardist from Centralia, Illinois, who graduated from Cornell University in 1922. He established the generous gift in memory of his wife, Fanny French Perrine, whom he met and fell in love with while at Cornell in the 1920s. At the time, Fanny was a student in bacteriology and David a student in pomology.

David and his brother, Alden (Cornell ‘27), were partners in the Perrine Orchard, farming 600 acres of peaches, apples, and pears. Jim Cummins, professor emeritus of horticultural sciences at Geneva, who has known and admired the Perrine family for many years, said,"David was the best fruit grower in the Midwest." David Perrine had a long and distinguished career as an apple and peach grower, before his death in 1997. He was a leader in the fruit industry, president of the National Peach Council, a member of the National Apple Institute, and president of the Illinois State Horticultural Society.

Cummins first met the Perrines after World War II, when he served as a field agent for F.H. Simpson Co., the fruit broker who handled the Perrine apple and peach crop. "I served around 100 fruit-packing houses that summer of 1946, and it was always an exciting relief to turn to the Perrines. The Perrine fruit was always a perfection, maturity just right, trunk loading on time, perhaps the only ‘honest pack’ on my circuit," said Cummins.

The Perrines were instrumental in Cummins continuing his studies in pomology at Cornell after he finished his undergraduate course work at the University of Illinois. The families maintained a close friendship throughout the years.
"Dave continued to be active in dwarf fruit tree experimentation even when he was in his 90s," said Cummins. Rootstocks also held a special fascination for Perrine, and Cummins credits him for using 'Hibernal' and 'Virginia Crab' stocks on a commercial basis long before the industry took them seriously.

The scholarship has already helped launch the promising careers of four young horticulturists at Cornell. In 1994, the first year it was awarded, the Perrine Scholarship was given to Patrick Conner, a doctoral student in pomology whose research with Susan Brown focused on the genetic mapping of apples and the identification of certain sequences in the apple genome that determine traits, such as size, flavor, and color. Conner is currently an Assistant Professor at the University of Georgia. In 1995, Thomas E. Clark received the award while he was pursuing a master’s degree at Cornell, and working with Terence Robinson. In 1996, Chris Owens received the award. He worked with Ed Stover on two projects in plant growth regulators at the Hudson Valley Lab, and is currently pursuing his Ph.D at Michigan State. Last year’s recipient, Laurie Boyden, continues to conduct her thesis research with Brown.