



University of Tennessee—Kasetsart
University (Thailand) International
Student Exchange Program
May—June, 2000



Introduction

In 1999, University of Tennessee Institute of Agriculture and Kasetsart University administrators and faculty agreed to establish a student exchange program modeled after a long-standing and successful student exchange program between Kasetsart University and Tokyo Agricultural University. The overall goal was to engender participants' understanding and appreciation of each country's culture and agricultural and natural resource industries. Each university agreed to host a group of 10 to 12 students and accompanying faculty for a one-month period during which participants would tour agricultural and natural resource sites and industries, a variety of cultural attractions, and experience a home stay. Furthermore, each university agreed to cover all expenses for ground transportation, housing and meals incurred while hosting the visiting delegation. A delegation of 11 Kasetsart University students, 4 faculty members and 1 staff person was hosted by the University of Tennessee during May 2000, and a delegation of 10 University of Tennessee students and 4 faculty members was hosted by Kasetsart University during June, 2000.

Program Participants

The Kasetsart University delegation was comprised of 11 undergraduate students from four of KU's campuses; 2 junior faculty members; a representative of KU's International Affairs Division; Dr. Sombat Chinawong, Associate Dean of the Faculty of Agriculture; and program director Dr. Lop Phavaphutanon, Assistant Professor of Horticulture. Academic majors of the 11 participating students were Ag Extension and Communication (2), Horticulture (3), Ag Machinery (1), Home Economics (2), Animal Husbandry (1), Genetics (1), and General Management (1). None of the participating students had ever before traveled outside of Thailand.

The University of Tennessee delegation included 5 undergraduate students and 5 (M.S.) graduate students. Academic majors of the participating students were Animal Science (1 Grad + 1 UG), Agricultural Economics (1 Grad), Agricultural and Extension Education (1 UG), Agricultural and Biosystems Engineering (1 UG), Entomology and Plant Pathology (1 Grad), Food Science and Technology (1 Grad), Forestry, Wildlife and Fisheries (1 Grad), Ornamental Horticulture and Landscape Design (1 UG), and Plant and Soil Science (1 UG). Six of the students had never traveled outside the U.S. Accompanying faculty included program co-directors, Robert Orr (International Programs Coordinator) and Kelly Robbins (Animal Science Department); Luther Wilhelm (Agricultural and Biosystems Engineering Department); and Michael Mullen (Plant and Soil Science Department).

Program

The Kasetsart University delegation toured sites in east, middle and west Tennessee. While in Knoxville participants stayed in area hotels and individual family homes. Other housing locations included the Clyde York 4-H Center in Crossville, the W. P. Ridley 4-H Center in Columbia, and the Ames Plantation in Grand Junction. Agricultural- and natural-resource-related tours/presentations included, among others, Sweetwater Valley Dairy Farm and Cheese Company, Monterey Mushrooms, Cargill Corn Milling Division, Tyson Poultry Processing Plant, Waterfall Farms (Tennessee Walking Horse farm), Sparks International, Holtkamp Nursery, a variety of nurseries in the McMinnville area,

FRONT COVER Top: Kasetsart University exchange program participants visiting the Opryland Hotel. Pictured in the center is UT alumnus Hollis Malone, Opryland's Director of Horticulture. Bottom: University of Tennessee exchange program participants at Kasetsart University's Khamphaengsaen Campus.

Great Smoky Mountain National Park, Fall Creek Falls State Park, Tennessee Farm Bureau, Tennessee Department of Agriculture, and the Knoxville, Middle Tennessee, Jackson, and Milan Experiment Stations. Example cultural excursions included the Museum of Appalachia, Sequoyah Museum, Tennessee Aquarium, Pinson Mounds State Archeological Park, Memphis' Beale Street, and Nashville's 2nd Avenue district.



The University of Tennessee delegation traveled from Bangkok to and from the northern most point in Thailand at the border with Laos and Myanmar (Golden Triangle). Housing in Bangkok was at an area hotel and individual family homes. While outside Bangkok, housing was provided at a number of different university and other government agency facilities. Agricultural- and natural-resource-related tours/presentations included, among others, low-land fruit orchards and vegetable farms, Supa Orchid (large commercial orchid tissue culture operation), Fresh Meat Company (swine slaughter and processing plant), Chokchai Farm (commercial dairy and associated agro-tourist enterprises), Star Feed Company, CP Meiji Company (dairy product manufacturing), Bangkok Produce (poultry processing plant), a variety of small- to moderated-size poultry, swine,

dairy, and aquaculture farms, Talad Thai (Thailand's largest wholesale fruit and vegetable market), and the Doi Tung Development Project. Cultural excursions included such sites as the Grand Palace, Bang Pa In Palace, Ayudhaya Historical Park, a floating market, Thai Elephant Conservation Center, and the Historical Image Museum.

Participating UTK students were expected to maintain a daily journal during the study tour, and during fall semester '00, present a college-wide group seminar, and individual department seminars. Participants will be given 3 hours credit in ANR 409, International Study.

Complete itineraries of the respective study tours are attached as appendices. Funding for the exchange program came from a variety of sources, including a grant-in-aid from Novus International, Singapore, a UTK Professional Development award, the College of Agricultural Sciences and Natural Resources, and Kasetsart University. The cost incurred hosting the 16 person Kasetsart University delegation in Tennessee was \$17,410. Of this total, 53% was for lodging and 32% was for transportation (UT Motor Pool). For international travel of the UTK delegation, a \$5200 UTK Professional Development Award covered costs of the four faculty members, and the College of Agricultural Sciences and Natural Resources subsidized participating student airfares \$500 per person (\$5,000 total); thus, total University of Tennessee expenditures were \$27,610.

Outcome

Dr. Nancy Howell (College of Veterinary Medicine) designed pre- and post-tour assessment surveys. The pre-tour assessment was administered to the Kasetsart University delegation on the third day of their tour of Tennessee during the program orientation. The post-tour assessment was administered during a wrap-up meeting held prior to their return to Thailand. University of Tennessee participants completed the pre-tour assessment following completion of an orientation program but prior to departure for Thailand. The post-tour assessment was administered one week following their return. Survey results are presented in Table 1.

Survey results clearly indicate that the program goal to engender participants' understanding and appreciation of each country's culture and agricultural and natural resources industries was achieved. Kasetsart University student knowledge of U.S. agriculture, food industry, culture and society (survey items 1, 2, 3, and 8, respectively) was substantially increased. For each item, all students indicated only some or less knowledge before the tour, and >75% indicated a moderate to high level of knowledge at the

TABLE 1. University of Tennessee and Kasetsart University International Student Exchange Pre- and Post- Assessment

Kasetsart University Students (n=12)

1. Level of knowledge of agriculture in the United States:

	<u>High</u>	<u>Moderate</u>	<u>Some</u>	<u>Low</u>	<u>None</u>
Initial			33%	33%	33%
Final	17%	75%			

2. Level of knowledge of food industry in the United States:

	<u>High</u>	<u>Moderate</u>	<u>Some</u>	<u>Low</u>	<u>None</u>
Initial			17%	66%	17%
Final	8%	84%	8%		

3. Level of knowledge of U.S. culture:

	<u>High</u>	<u>Moderate</u>	<u>Some</u>	<u>Low</u>	<u>None</u>
Initial			58%	34%	8%
Final	33%	50%	8%	8%	

4. U.S. agricultural techniques are:

	<u>Highly developed</u>				<u>Not highly developed</u>		
	7	6	5	4	3	2	1
Initial	17%	67%		8%		8%	
Final	50%	42%	8%				

5. Diversity of U.S. agriculture is:

	<u>Highly developed</u>				<u>Not highly developed</u>		
	7	6	5	4	3	2	1
Initial	25%	42%	25%	8%			
Final	8%	17%	50%	25%			

6. Agricultural education in the United States is:

	<u>Highly developed</u>				<u>Not highly developed</u>		
	7	6	5	4	3	2	1
Initial	42%	50%	17%				
Final	50%	33%	17%				

7. U.S. agricultural products distribution system is:

	<u>Highly sophisticated</u>				<u>Highly unsophisticated</u>		
	7	6	5	4	3	2	1
Initial	25%	58%	17%				
Final	50%	33%	8%				

8. Level of knowledge of U.S. society:

	<u>High</u>	<u>Moderate</u>	<u>Some</u>	<u>Low</u>	<u>None</u>
Initial			75%	25%	8%
Final	25%	50%	25%	8%	

University of Tennessee Students (n=7 pre-tour; n=10 post-tour)

1. Level of knowledge of agriculture in Thailand:

	<u>High</u>	<u>Moderate</u>	<u>Some</u>	<u>Low</u>	<u>None</u>
Initial				86%	14%
Final	40%	50%	10%		

2. Level of knowledge of food industry in Thailand:

	<u>High</u>	<u>Moderate</u>	<u>Some</u>	<u>Low</u>	<u>None</u>
Initial			29%	71%	
Final	30%	60%	10%		

3. Level of knowledge of Thai culture:

	<u>High</u>	<u>Moderate</u>	<u>Some</u>	<u>Low</u>	<u>None</u>
Initial			100%		
Final	40%	60%			

4. Thailand's agricultural techniques are:

	<u>Highly developed</u>				<u>Not highly developed</u>		
	7	6	5	4	3	2	1
Initial		14%	57%	29%			
Final		20%	40%	40%			

5. Diversity of Thailand's agriculture is:

	<u>Highly developed</u>				<u>Not highly developed</u>		
	7	6	5	4	3	2	1
Initial	14%	29%	43%	14%			
Final		20%	40%		30%		

6. Agricultural education in Thailand is:

	<u>Highly developed</u>				<u>Not highly developed</u>		
	7	6	5	4	3	2	1
Initial		29%	57%	14%			
Final		20%	60%	20%			

7. Thailand's agricultural products distribution system is:

	<u>Highly sophisticated</u>				<u>Highly unsophisticated</u>		
	7	6	5	4	3	2	1
Initial		14%	29%	43%	14%		
Final			40%	60%			

8. Level of knowledge of Thai society:

	<u>High</u>	<u>Moderate</u>	<u>Some</u>	<u>Low</u>	<u>None</u>
Initial			57%	43%	
Final	10%	70%	20%		

tour conclusion. Kasetsart University students found that U.S. agricultural techniques (survey item 4) were somewhat more highly developed than they initially assumed. Similarly they found the U.S. agricultural products distribution system (survey item 7) to be somewhat more highly sophisticated than they had initially assumed. Responses to survey item 5 (relative diversity of U.S. agriculture) suggests that participants assumed a greater degree of diversity than they observed. There was little change in their perception of U.S. agricultural education.

The survey also asked participants to list their opinions of the primary obstacles facing U.S. agriculture, and indicate what they found most interesting. All Kasetsart University students concluded that high cost of labor, high cost of other production inputs, soil erosion and growing season were the primary obstacles facing U.S. agriculture. The most often cited interesting observation was the significant emphasis and success in advancing agricultural technology in an environmentally sustainable manner. Other items frequently noted were the high level of knowledge/education of agricultural producers, and the manner in which producers managed a limited growing season.

UTK student knowledge of Thai agriculture, food industry, culture and society (survey items 1, 2, 3, and 8, respectively) was also substantially increased as a result of their study tour in Thailand. For each item, all students indicated only some or less knowledge before the tour, and >80% indicated a moderate to high level of knowledge at the tour conclusion. It is interesting to note that our students were required to participate in a rather intensive series of orientation sessions prior to their trip to Thailand. The orientation included rudimentary language training and discussion of social norms and customs. Many of the sessions were led by Thai students currently enrolled at UTK; thus, students "exposure" to Thai culture and society during the orientation was certainly equivalent to or greater than that included in a typical foreign language course. Nonetheless, their pre- and post-tour responses to survey items 3 and 8 clearly emphasize the minimal impact of classroom discussions compared to immersion in the culture itself.

Student perceptions of the degree of development of Thailand's agricultural techniques, diversity of agriculture, and relative sophistication of the product distribution system were not affected by the tour. This is not surprising, given that production and marketing practices are not remarkably different from those observable in Tennessee. Although student responses to survey item 7, agriculture education, were not substantially affected by the tour, ineffective transfer of new technology and information to agricultural producers was cited as a primary obstacle facing Thai agriculture. Students also noted the much greater reliance on labor versus mechanization in both agricultural production and food processing.

A majority of our students listed the home stay among the most interesting aspects of the tour. Anecdotally, one student did not want to participate in the home stay and asked to be excused. The student was not excused and in the wrap-up meeting enthusiastically stated that the experience was the highlight of the trip. Other students also in one way or another expressed some anxiety prior to going to their respective Thai host homes. Other "most interesting" aspects of the tour cited by a majority of participants included visits to several of the Royal Projects, historical sites and temples, and the elephant trek at the Elephant Conservation Center. All participants listed tour sites and experiences related to their respective majors.

Conclusions and Future Programming

The world population is forecast to grow 1.2% per year through the year 2020 reaching a population of 7.7 billion (Council for Agricultural Science and Technology, 1999). As the population expands, urbanization of agricultural areas will continue, incomes in many of the world's developing nations are expected to rise, and global demand for value-added agricultural products will increase substantially. It has been predicted that global demand for meat and meat products will be 63% greater in 2020 than in 1977; 88% of this increase occurring in developing countries and nearly 50% of the increase in China and Southeast Asia (Council for Agricultural Science and Technology, 1999). Now and even more so in the future, agricultural professionals must be prepared to work in a global marketplace to be successful. It is especially important

that our students develop an understanding and appreciation for other cultures and global competition in the agriculture sector. It is therefore incumbent on us to provide diverse learning opportunities in international agriculture, and student exchange programs of this sort are one effective means to accomplish this.

This represents the College of Agricultural Sciences and Natural Resources first major international student exchange program. Fortunately we have a long history of excellent cooperation with Kasetsart University and the program went very well. And, participating students were profoundly and positively affected. At the wrap-up session held before returning to the U.S., student remarks included, “... greatest experience of my life..., ...depth and breadth of the tour was overwhelming..., ...best cultural and educational experience I have ever had..., have never traveled before and now hope to be able to do much more...” We hope that participating students can convey these sentiments to their peers upon return to school in August, and we expect student interest in participating in future programs of this sort to grow substantially as a result.

Based on brief discussions with key Kasetsart University faculty and administrators at the conclusion of the program, it appears that they would prefer to repeat the program next year, and continue the program annually or biennially thereafter. We concur. It will be essential, however, to obtain the necessary funds to support the program. A representative of Novus International, Dr. Sou Fei Chin, indicated that Novus would likely continue their financial support and also offered assistance in obtaining additional support from other agribusinesses and commodity associations. We had estimated that we could host the visiting Thai delegation for \$10,000 to \$12,000; however, based on costs actually incurred, at least \$20,000 will be required to fulfill our obligation should we repeat the program next year.