



ZAMORANO Learning by Doing

ESCUELA AGRICOLA PANAMERICANA - Teaching today's youth to feed tomorrow's world

Director's Newsletter

Simon E. Malo

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Escuela Agrícola
Panamericana

P.O. Box 93

Tegucigalpa, Honduras

FROM THE DEAN'S OFFICE

Admission to Zamorano continues to attract great interest from high school graduates throughout Latin America. For the class of 1990, which starts in January of 1988, close to a 1000 applications have already been received for 220 spaces. EAP is grateful to the national chapters of Zamorano graduates for their activity and interest in promoting their Alma Mater among youths who want an excellent agricultural education.

Zamorano was host to the "Round Table of Agricultural Education and Rural Development in Latin America" which took place the week of 3-7 August, 1987. This meeting was sponsored by EAP and by the United Nations Food and Agricultural Organization (FAO). It brought together 16 deans and directors of leading agricultural colleges in Latin America, as well as observers from Honduras and other countries. This meeting produced concrete recommendations toward the improvement of teaching programs for the Agricultural Science colleges. These results will be distributed by FAO to all other colleges in the Continent, and we are certain that they will have a positive influence over programs of agricultural development and education.

During the month of June we were visited by delegates from West Germany's Ministry of Economic Cooperation, headed by Mr. Bernhard Schweiger, accompanied by Dr. Eckehard Schober, German Ambassador, and by Honduras Minister of Planning Lic. Francisco Figueroa. Our visitors saw the progress of EAP educational programs and offered to increase the number of scholarships provided by the German Foundation for International Develop-

ment (DSE). Moreover, EAP is the recipient of additional German funds for technical and financial projects in agricultural development and education.

We have sent an early reminder to graduates and friends that in October, 1992, EAP will celebrate its Golden Anniversary. The celebration heralds ambitious goals for educational and research projects, fund raising, and general promotion of our institution. One of our aims is to inaugurate the "Student Center for Agricultural Education and Development".

Fifty six Agrónomos from seven countries registered in April '87 for the Fourth Year program which confers the degree of Bachelor of Science in Tropical Agriculture (Ingeniero Agrónomo). It requires the completion of three academic periods with a total of 48-credit hours. Within this program the students gain working experience in Animal Science, Agricultural Economics and Agribusiness, or Plant Science (Agronomy, Horticulture and Plant Protection).

We welcome new members to the teaching and administrative staff: Oscar

Cosenza, (Soils) Agronomy Department; Manuel Morales, Animal Science; Edmundo Porras, Communications; Dr. Jorge Moya, coordinator of Agricultural Economics and Agribusiness; Margaret Vamosy, Horticulture; Dr. Ronald Cave, (Entomology), Luis del Rio, (Entomology), Gregory Evans, Bernardo Martínez, Carlos Trabanino, all in Plant Protection, and Hernando Dominguez, in the Rural Development Program. We also welcome back Dr. Keith Andrews, Rafael Caballero, Jorge Cawich, Federico Fiallos and Norma Rodriguez, who after varying periods of studies in the U.S. and Europe have returned to previous jobs at Zamorano.

AGRONOMY

More land has been planted this year with hybrid corn and other crops. EAP has the technology and facilities required to satisfy a large percentage of Honduras' demand for seed. We emphasize the participation of the students in all aspects of seed production, from planting, crop management, detasselling, up to the harvest and processing.



Mario Jalil, zamorano graduate and FAO regional director, speaks at the inauguration of the Latin American Round Table.



Students participate in all aspects of certified seed production.

Zamorano has received two new grants recently. The first, from the Public Welfare Foundation of Washington, D.C., will be used to develop an extension project in fish culture for marginal areas of Honduras; the second, from the USAID-University of Minnesota to continue research on nitrogen fixation and drought tolerance in interspecific bean hybrids.

In cooperation with the Government of Honduras, our forestry section planted 1500 trees of *Gmelina arborea* in the valley, plus 10 hectares of *Pinus oocarpa* on Mount Uyuca. We are grateful for the assistance in this reforestation project. The forestry section also started a research project in cooperation with CATIE, Costa Rica (Agricultural Center for Tropical Research and Teaching) to evaluate the progeny of *Bombacopsis quinatum*, a valuable tree for producing lumber and firewood.

Since February, the "Rural Development Center" has been operating under Agronomy, but its own building is now under construction. The Center's professionals and students work in four areas of Honduras (Tatumbala, Moroceli, Danli and Sabanagrande) endeavoring to improve the nutrition and income of "campesino" families. With technical support of EAP, this program has provided small farmers with several new vegetable cultivars (cabbage, cauliflower, onion, potatoes) and triticale. Several international organizations, mainly the Kellogg Foundation and the Inter American Foundation support the programs of the Rural Development Center.

AGRICULTURAL ECONOMICS

The Department of Agricultural Economics and Agribusiness was reinforced and expanded when the Fourth Year program was started in April. It satisfies the growing need of preparing professionals to make economic and managing decisions and to consider their impact on agribusiness. The department offers courses in: Microeconomics, Mathematics for Agricultural Economics, Finance I and II, Marketing, Production Economics, Computers in Agriculture, Price Analysis, Agribusiness Management, Development Policy, Production Systems, Personnel Management, and Rural Sociology. Research conducted by this department will have direct utility for EAP's administration. Examples include: feasibility studies for raising pigs, fish and strawberries; cost analyses of several of EAP's production sections; a

computerized data bank for vegetable prices. It has a cooperative program with the Integrated Pest Management Project for socio-economic profiles of cabbage growing areas; and new laboratories for second and third year students for the compilation of computerized accounting data, evaluation of control systems, and analysis of the technical and economic efficiency of production sections.

ANIMAL SCIENCE

The swine unit has four new expanded sections: farrowing, weaned piglets, sows and boars in reproduction, and fattening. Fifty sows will produce 1000 finished pigs per year, increasing efficiency and providing better support to teaching and research programs. A few units continue operating in traditional ways for comparison.

Animal Science cooperated in June with the Central American Seminar on Bovine Breeding and Reproduction, organized in Tegucigalpa by the Honduran Association for Animal Production and by the Agricultural Credit Project of the Central Bank. More than 700 delegates from several countries came. The meeting was concluded with a field day at EAP. This has been the largest single group to ever attend a field day and tour Zamorano. During the third week of July we held another field day with livestock producers from southern Honduras, also in cooperation with the Central Bank and with the Ministry of Natural Resources. Our staff presented the latest research results.

We are grateful to Dr. Hugh Popenoe for the donation of a water buffalo of an



Goats are a good source of income for poor campesino families.

Italian breed, and of two Charolais bulls. They will be used in our breeding programs.

In cooperation with the Rural Development Center we conducted a survey on human nutrition in the Sabanagrande region. We also donated 28 goats to 14 "campesino" families under a related project. The young goats we obtain from these families will serve as payment to continue and strengthen the project.

HORTICULTURE

The progress of this Department includes two new laboratories for Bee Culture and Post-Harvest. Both will be part of a larger complex with the forthcoming department offices and a Food Processing Plant. The efficiency of the harvest and transport of fruits and vegetables from the field to the post harvest laboratory will be greatly increased.

We have introduced new cultivars of hot peppers from Peru, (aji Escabeche), and "Iceberg Astral" lettuce, and are hoping for increased yields during the rainy season. Two new varieties of sweet corn, "Sudance" and "Summer Sweet", have been well received. Tests with onions have shown that several varieties are well adapted to our growing season. We can recommend: for red cultivars, Red Granex and Tropicana; for yellow Granex 33, Granex 429 and Texas Grano 1025, and for white Colossal and White Majesty.

Asparagus production continues to give good results and the bananas irrigated with treated sewage water are producing high yields. We are enlarging the sun-grown coffee plot with the cultivar "Cathuai", and the citrus orchard is also being expanded. A new tractor-drawn transplanting machine will be used to train students in the mechanized production of vegetables.

PLANT PROTECTION

Our Integrated Pest Management Project has initiated a program to generate, validate and transfer technology for the prevention and resolution of the most common problems found in cabbage production, Honduras' most important vegetable crop. Pesticides have been applied in excessive amounts leaving

toxic residues and eliminating the crop's potential in certain areas. The Diamondback moth (*Plutella*) is virtually resistant to all available pesticides. Our researchers are trying to solve this problem with the active participation of the producers. During the initial stages of research we found two wild host plants of *Plutella*, and the impact of natural control is being studied. We also found a microscopic wasp parasitizing the moth in the field. Future trials will concentrate on selective insecticides that do not affect the wasp.

The Department of Plant Protection keeps eight technicians in El Paraiso and Olancho who interact with more than 500 small farmers and conduct research and give technical assistance in corn and bean production. Our proposed technology for the control of the bean slug is being adapted to these areas.

PLANNING AND DEVELOPMENT

Several projects have been completed during the past few months. The George Washington dormitory for fourth-year students and for short course participants has a capacity for 140 students. Additionally, the first phase of the library extension was finished. This south wing adds 580 m² of study area. For Animal Science we finished four swine production buildings plus the new Dairy Products Plant and the Slaughterhouse and Meat Processing Plant. In horticulture the two laboratories for Apiary and Post Harvest have been completed. We want

to express our gratitude to AID-ASHA (American Schools and Hospitals Abroad) for financing these buildings. The Diagnostic Center of the Department of Plant Protection is almost finished, construction sponsored by USAID-Honduras.

RETURN FROM MISFORTUNE

"Labor Omnia Vincit" (work conquers all) is a Zamorano slogan ever present in the life and the careers of our graduates, most of whom maintain strong relations with the School and send new generations of their children and friends to study here. There are many families throughout Latin America that have several members who graduated or are presently studying at Zamorano. Estuardo Casasola belongs to one such family in Guatemala.

In January of 1980, Estuardo achieved his dream of entering Zamorano, as two of his brothers (classes of 70 and 74) had done before him. In August 1981, Estuardo and several classmates were in a serious auto accident. When he recovered consciousness several days later, he found himself in the hospital, totally paralyzed. His neck had been broken, and his spinal cord severely damaged.

The dream of graduating from Zamorano and becoming a successful agronomist like his brothers seemed to have been smashed. His relatives' concern was not enough to give him a promising future, and he could not en-



Zamorano helps with research and extension work in cabbage pests.

vision a career for an invalid. He got involved in several enterprises, and was able to purchase a car with special controls with the profits from a small vegetable farm that he managed. His companions in the accident had graduated, but for him there remained several years of operations and therapy.

His professors noticed his dismay and suggested that he return to his classes at Zamorano. Estuardo accepted the challenge with mixed feelings because he was aware of the obstacles that he would surely encounter. He returned to the School in his wheel chair five years after the accident. His was a special case, but the School was pleased to accept the challenge also. At present, Estuardo lives in a regular room of the dormitories. Although confined to a wheel chair, he leads a regular student's life and is satisfying the academic requirements of his third and last year.

Estuardo is delighted with his return to Zamorano. He manages his work and daily activities by himself, even if he has not recovered (and perhaps never may recover) the use of his legs. His manual ability is also somewhat impaired, but he is able to fix up his room and even strum the guitar with his friends. He participates in all work "modules" but sometimes he finds himself keeping the



Group of "agrónomos" registered in the Fourth Year in April 1987. In front row, their research chairmen.

records and involved in the less physical activities of the groups's responsibilities. His friends seem to know instinctively when he needs help, and he knows when to ask for it. "I accept my limitations --- he says--- and I am not too proud. My life has changed since my return to the School. It is terrible to be alone, but there must be a balance between times by yourself and in company."

Estuardo acknowledges that he is not an outstanding student, and that some courses have given him a few scares. "I know how to buy and sell, and I plan

to work with vegetables as some others in my family already do. I will be a good Agronomo, with fine aptitude for work and for business... who knows, perhaps I will decide to keep studying after my coming graduation from Zamorano." Problems he has encountered have made him aware of those found by many people handicapped and unable to work in the field. "I have a few ideas that will allow people in wheelchairs to work, such as with bee hives; I will put them down on paper when I have the chance", he adds.

"Labor Omnia Vincit."



P.O. Box 93
TEGUCIGALPA, HONDURAS