

# Two ZAMORANO Graduates ELECTED To The Board Of TRUSTEES

In 2009, Zamorano welcomed Dr. Juan Medrano (Guatemala, 1969) and Ricardo Koyner (Panama, 1987) as new members of the University's Board of Trustees.

Juan Medrano is Professor of Animal Genetics in the department of Animal Science at the University of California Davis (UC Davis) in the United States. Juan earned both his Masters of Science in Animal Science and a Ph.D. in Genetics at UC Davis and has lived in California for almost 40 years while journeying for short periods to Guatemala to teach and lecture. In 2002, he was awarded the National Medal of Science and Technology of Guatemala for his research and scholarly accomplishments in the field of animal genetics. At the Zamorano alumni convention in Panama in September 2008, Juan received the Research and Agricultural Development in the Americas Award from his fellow graduates.

Ricardo Koyner is the president and owner of Café Kotowa, a highly successful organic coffee business based in Panama. He also owns a teak plantation, a hotel, and a nature and adventure tourism business. In 1990, Ricardo earned a Masters in Business Administration and Resource Development from the University of Florida. In the years since he graduated from Zamorano, Ricardo has stayed abreast of the activities at his alma mater through Zamorano's newsletters and publications and the alumni network, as well as through a collegial friendship with fellow Panamanian coffee producer and Zamorano Board member, Dr. Price Peterson. Ricardo feels strongly that a graduate of Zamorano must "give back" to Latin America and to the University, and he sees the position of trustee as a means to do so.

Dr. Medrano and his instructor in 1969 holding two growing pigs during field practices. That year, he graduated at the top of his class.



"Zamorano was the institution that formed me as a professional, just as it still does today with students from all over Latin America. It gave me a sense of responsibility for the school and for the society in which I live and work. As a board member, I hope to help Zamorano

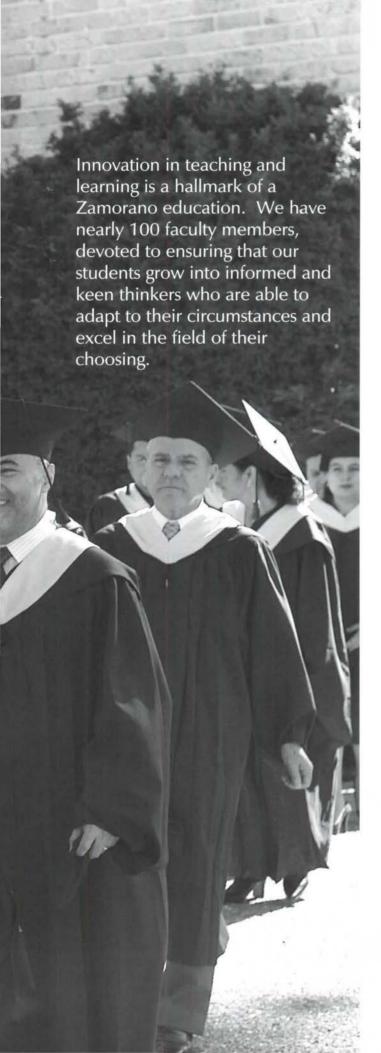
tools, education, and guidance needed for future generations of students."

Ricardo Koyner Class of '87 Newly elected member

Newly elected member of the Board of Trustees

# FEGULEY

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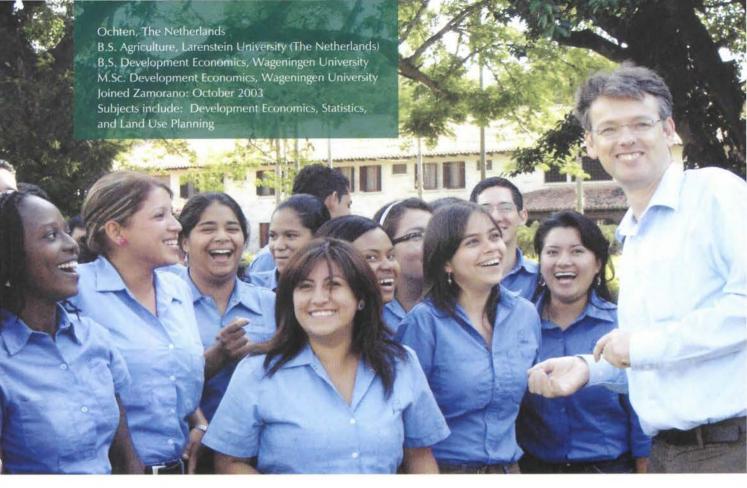
Our professors and instructors teach students in the classroom and the laboratory, as well as in hands-on learning practicums that give Zamorano students the chance to learn how to apply and adapt their lessons to real-world circumstances.

Many of our faculty have earned doctorates or equivalemt terminal degrees in their areas of specialization and are recognized experts in their fields. Yet even more important to Zamorano — and the faculty themselves — our professors and instructors have substantial professional and personal experience that informs their approach as teachers and mentors.

Zamorano faculty are committed to improving the lives and prospects of the students in their care, so that those young people may, in turn, graduate and find careers where they can apply themselves to improving the lives of others. Many of our professors and instructors lead by example, not only in the important work they do as teachers, but also as researchers and specialists helping to better the lives of people throughout Latin America.

Zamorano outreach efforts are many and varied. Our faculty provide classes and technical assistance programs on campus and they also travel to the places where need is greatest. Our faculty consult and offer expert opinion to a broad spectrum of academic, public, non-profit and governmental agencies and regularly publish on their work and findings. In addition to scholarly research in peer-reviewed journals, many create technical assistance manuals for regional and international outreach efforts and present papers at local and international conferences.

In the following pages we offer profiles of five of our professors. Arie Sanders, Javier Bueso, María Mercedes Roca, Oliver Schlien and Luis Vélez exemplify the commitment of our faculty to providing an exceptional educational experience to our students, while also providing research, technical assistance and support to help alleviate major problems in the region. They represent just a few of the many talented professionals who make Zamorano the exceptional university that it is.



## Arie Sanders

Director, Socioeconomic Development and Environmental Science Department

I like to work with my students because they are curious and motivated to improve themselves. I like engaging them in discussions about development issues, such as the reasons behind how society functions, how wealth is distributed, and why -- in part because these are not just theoretical discussions for them.

Many of our students come from impoverished rural areas, and they are looking for answers. Effective economic development programs can make a huge difference to their families and communities. Many have also seen up close environmental degradation and its cost to their communities; they understand the need to protect and reclaim natural areas because of the long term benefits to the people as well as the ecosystems.

Our department has grown a lot in the last few years. We have moved to an emphasis on environmental studies, which has greater applicability to the Zamorano value chain. We have also expanded our forestry sciences specialization and our water management.

programs. Both are comprehensive educational programs for students, but also undertake important outreach initiatives. Our Geographic Information System (GIS) Laboratory is one of its kind in Honduras. We have twenty dedicated workstations where students learn predictive modelling and how to construct simulations as well as how to map areas effectively for long-term evaluation. In 2009, seven senior theses incorporated mapping and predictive modeling.

Recently, the Socioeconomic Development and Environmental Science Departmen has created a number of advanced courses that focus on specializations in environmental studies and provide education in subjects that are still rarely available in Central America. This includes our new and growing Marine Ecology and Coastal Studies program. Our tropical marine ecology class is the first ever to be offered in Honduras, and we are working to expand our capabilities in the field.

The Socioeconomic Development and Environmental Science Departmen also has a number of renewable energy projects, from our Global Village Energy Program (GVEP), which seeks to develop a market for renewable energy sources like solar panels and wind turbines in the Yeguare Valley, to our biofuel initiatives, and to our clean cooking stoves program.

### Javier Bueso

The Rudolph A. Peterson Professor, Food Science and Technology Department

In the past couple of years I've been the supervisor for 10 theses on biofuel topics. We've evaluated the energy output of palm oil and palm fiber, corn, soy, and other vegetable oils. It's an exciting and needed area of research, and we expect that Zamorano will soon be able to use this technology for some of the University's energy needs.

I think Zamorano provides an open and safe environment that promotes learning. As a professional, I am dedicated to Zamorano; it is the only place in Honduras where I am able to teach students, conduct research, and run a laboratory within the field I like best, food science.

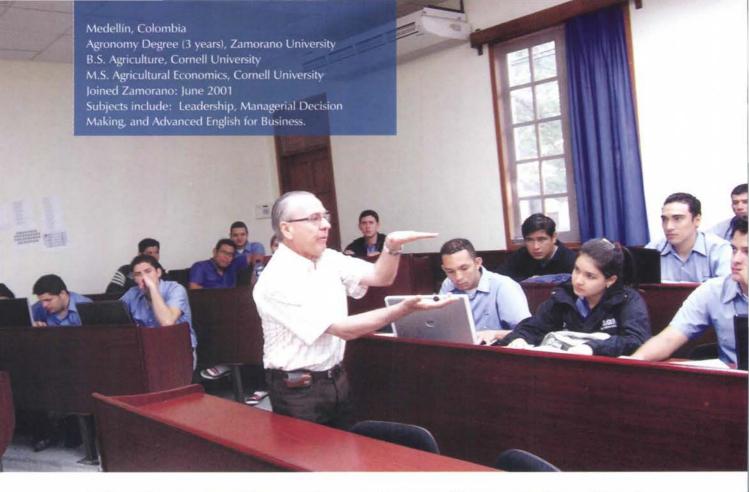
Besides a laboratory in Costa Rica, Zamorano is the only other institution that provides nutritional evaluation services in Central America. Our lab helps small food processing companies comply with regulations for the export of food stuffs to Europe and the United States. We began providing services in 2006 and have been expanding our capabilities ever since. We now test more than 1,000 samples a year and can measure trans fats and cholesterol by gas chromatography -- we use liquid chromatography for vitamin analysis -- just to name a few. Each year student theses expand our scope. For example, last year a student measured the caffeine content in 15 coffees for his thesis. His work laid the foundation for a mapping of the quality of Honduran coffees, and the lab now has the capability to analyze the levels of caffeine in chocolate, tea, sodas and other products.

In 2009, I had the good fortune to travel to several countries to give presentations. I went to Beijing, China in August to attend the week-long International Conference on Agricultural Economics, and to Scotland in November to present at a conference on Food Security in Latin America. Talso traveled to a conference on Food Science in Chicago last March, which in turn helped me secure an internship at the Food and Drug Administration in Washington, D.C., for this Fall. I will be there for six months in the research participation program for visiting scientists at the Center for Food Safety and Applied Nutrition. I will be learning how to use the latest and best equipment in the field, and working with leading food scientists and researchers. I plan to conduct a research project aimed at improving our understanding of fruits and plants in Honduras that

have not yet been evaluated in terms of nutritional or medicinal value. There's a lot of potential there for new discoveries and new products.

San Pedro Sula, Honduras
Agronomy Degree, Zamorano University
MS and Ph.D in Food Science and Technology
Texas A&M University
Joined Zamorano: December 2004
Subjects include: Chemistry of Food and
Nutrition, Science and Technology of Seeds





I often draw on my life experiences when teaching my students. They love hearing personal case studies and ask a lot of questions. These examples encourage them to embrace their creativity. I tell them they should always be looking for a new idea -- something that people need -- which they can develop into a product to sell.

## Luis Fernando Vélez

### Director, Zamorano Center for Entrepreneurship

After I graduated from Zamorano in 1968, I spend almost 30 years in private enterprise. I worked in research and upper management positions for Dole Fruit Company, Dow Chemical Company, and Plastilene, a South American plastics and packaging company.

The Center for Entrepreneurship is devoted to supporting Zamorano students and helping them Zamorano del become business founders and leaders. We do this through

classes on leadership and entrepreneurship, and we invite business leaders and other experts to campus for lectures and workshops. As one example, we celebrate "the day of the entrepreneur" in the middle of October and have a Zamorano graduate and a non-graduate come to give a joint talk.

Most importantly, we have a program we call the "Business Plan Competition," and every year approximately 30 third-year students create and submit small business plans. We award cash prizes as seed money for the top three plans, and then we provide advice and logistical support in the hope that some of these ideas can be developed into actual small businesses. The program is in its infancy - 2009 was the second year of competition -- but many of the plans have shown great promise. In the long run, we are seeking to build a "business incubator" for students and graduates of Zamorano. Currently we are reaching out to established companies to find sponsors to help us strenghten this program.

I am excited because I feel certain that in the next few years we will see some of these business plans turn into viable Latin American companies led by Zamorano graduates.

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# BUSINESS Plan COMPETITION



#### Zamorano Students Win Entrepreneurship Awards

Premian a jóvenes emprendedores del Zamorano

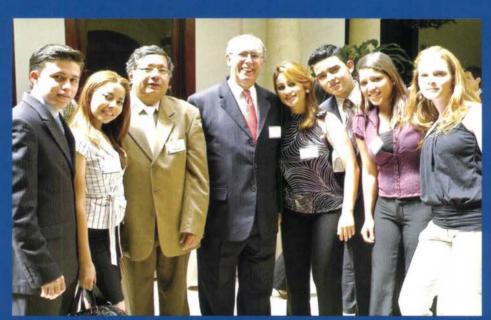
The best plan was "Improved seeds from Nicaragua", developed by Alvaro Gutierrez and Cermán Toruño. Toruño explained this project consists of setting up an "improved bean seed" processing plant, to increase farmers' productivity in the fields.

La Tribuna October 2009

Left: "Zamorano teaches us to generate employment opportunities and economic growth. We must have a vision... create things better and better; those are the values that Zamorano instills in us".

Antonio Granados (Zamorano, Class of '84)





Above: Zamorano President, Dr. Kenneth Hoadley, and the Director of the Agri-business Management program, Ernesto Gallo, share a moment with Zamorano students.

Zamorano's Agribusiness Management (AGN) department organized the third annual Regional Congress of Students in Business Administration and Economics, known as CREAN. The two-day event, held in October, brought more than 200 students from four countries to Tegucigalpa to hear speakers, panels, and roundtable discussions addressing the theme Global Financial Crisis and Its Impact on Latin America.

Special guests from universities, banks, and companies in Ecuador, Guatemala, Honduras, Nicaragua, and the United States attended and presented talks on the global financial downturn and its impacts on agriculture and export industries in their respective businesses.

Right: "Dr. Maria Mercedes Roca shows 4th-year student Alejandro Castro (Honduras) the damage caused by a viral infection on a Royal Palm. Alejandro [far right in the photo] is currently working on a research project (Senior Thesis) which aims to diminish the impact of the Coconut Lethal Yellowing Disease, a devastating disease which has eliminated around 95 % of the susceptible coconut varieties in the Caribbean Coast of Honduras. To date, approximately 35 % of lost palms have been replanted.

Looking to the future, I am very excited about our initiative begun in 2009 to develop a stronger program in bio-science education at Zamorano. We are forging partnerships with private enterprise, governments and scientists to make Zamorano the regional hub for bio-science education, including biotechnology research.

## María Mercedes Roca

Associate Professor of Biotechnology

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y 2030 there will be nine billion people on this planet. The increase in food production will have to be achieved largely in the Americas, where we have adequate water resources and a good growing climate. Appropriate use of agricultural technologies including biotechnology will be critical if we want to increase yields while protecting our

forests, watersheds and natural resources. These are the challenges that we address at Zamorano.

The University provides a wonderful mix of outreach and teaching opportunities. I first came to Zamorano in 1997 to teach plant pathology and, thirteen years later, I am helping Zamorano organize a meeting of the Caribbean Division of the American Phytopathological Society in Nicaragua in 2010. I've stayed at Zamorano for so long because of the positive impact we have. I travel extensively and consult with agricultural groups and government organizations, but at the same time, I'm able to work with young people on campus, helping them become "part of the solution." I am so proud when I see my students

succeed. In the Fall term, I joined the Norman Borlaug Institute at Texas A & M through a faculty exchange program awarded by the U.S. Department of Agriculture. It was an incredibly productive experience. In addition to auditing eight classes, including microbiology, plant pathology, and bioinformatics, I attended several pedagogical seminars and earned a certification from the Center for Teaching Excellence.

In October, I was also invited to Beijing, China to participate in a three day China-U.S. Summit sponsored by the Presidential Library of George Bush, Sr., and organized by Texas A&M and Peking University. More than 80 policy makers, entrepreneurs and scientists from around the world attended. At the biotechnology symposium I gave a talk on the effect of biosafety regulation on public researchers in developing countries.

#### Colombia and Bolivia

B.S. with honors, Microbiology Kings College London M.S. Plant Pathology University of London Ph.D. Plant Virology, University of London Joined Zamorano: September 1997 Subjects include: Biotechnology and Plant Pathology





# Oliver Schlein

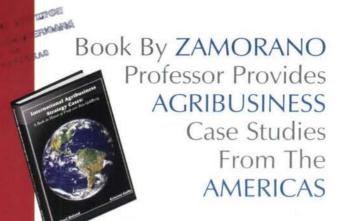
Visiting Professor of Entomology; Curator of the Insect Collection

Elmshorn, Germany
Undergraduate degree in Biology,
University of Hamburg
M.S. in Biology (specialization in Entomology),
University of Hamburg
Ph.D. in Biology (specialization in Entomology),
University of Hamburg
Joined Zamorano: October 2008
Subjects include: Entomology, Biodiversity and
Integrated Pest Management (IPM)

I work at Zamorano as an employee of the "Integrated Experts Programme, CIM" which is part of GTZ, the German government's aid organization for sustainable development. They hired me to teach at Zamorano for two years, with the option to extend for another four. CIM and GTZ support many organizations throughout the world.

My time is split between two departments: I teach an entomology lab for third-year students of Agricultural Science and Production (CPA), I contribute to a biodiversity class, and I give a practicum on insect ecology and biodiversity for the Socioeconomic Development and Environmental Science (DSEA) department. In early 2009, I designed the new practicum in entomology for all second-year students.

I am also the scientific curator and project coordinator for Zamorano's insect collection. This extraordinary collection includes more than 200,000 specimens, and



Zamorano students are very enthusiastic and interested in learning about the ecology of insects. For me it is most rewarding when I see students grasp that these creatures are not just nuisances or problems, but crucially important to the wellbeing of all of us.

Zamorano recently secured an agreement to add a collection from Nicaragua, which represents another 250,000. When the two are combined, Zamorano will have the largest and most important collection of arthropods in Central America and the largest representing insects from Honduras and Nicaragua. The collection attracts scientists from all over the world, and this past year we welcomed specialists from several Central American countries, as well as scholars from Harvard University, the Evergreen State College, and the Florida Museum of Natural History in the United States.

Honduras is a exciting place for an entomologist as there are still many large tracts of natural habitat and a considerable amount of insect biodiversity. Recently I traveled with DSEA students to the Gulf of Fonseca where we identified many interesting insects including sand and digger wasps, thermophile crickets and katydids, darkling beetles, ant lions, robber flies, millipedes, and arachnids, such as scorpions and whip spiders -- there was a lot to see! It might even have been the first entomological investigation in this coastal dry forest.

We are excited to report the recent publication of an important new book, *International Agribusiness*Strategy Cases: A Book in Honor of Professor Ray
Goldberg. Created to address the need for case studies and concepts related to policy issues affecting global agribusiness and business competitiveness, the book was conceptualized, researched, and co-edited by Ernesto Gallo, Zamorano professor and Director of the Agribusiness Management department, and Michael Boland of Kansas State University. (Goldberg, now retired, was a pioneering educator and established the specialization of agribusiness at Harvard Business School and other educational institutions.)

Published simultaneously in English and Spanish, the book offers 25 case studies from 11 different countries throughout the Americas. The insightful publication contains examinations of products and markets, including organic and conventional bananas, natural and conventional beef, wine, coffee, almonds, citrus, chocolate, and potatoes, as well as a chapter devoted to ethanol and electricity production from sugar cane.

Professor Ernesto Gallo wrote or co-wrote nine of the chapters, including case studies on Honduran melons, lime oil and organic bananas from Peru, and the Central American sugar market. Gallo also co-wrote two studies focusing on recent Dole Foods initiatives: "Establishing Trust as Part of a Global Strategy for Dole Foods" and "Dole Foods: Creating a 'Green Carbon-Neutral' Pineapple."

Of particular note to Zamorano friends and supporters, one chapter — "Jaramillo Special Coffee: The World's Best Coffee" — examines the history of this specialty bean which has commanded the highest price on the international market of any coffee in the world for several years running. Jaramillo is produced on Hacienda La Esmeralda in Panama, an ecologically-sustainable coffee plantation owned by Dr. Price Peterson, a long-time friend and trustee of Zamorano University.