

2013 IPNI Scholar Award Recipients Announced

The winners of the 2013 Scholar Awards sponsored by the International Plant Nutrition Institute (IPNI) have been selected. The awards of US\$2,000 are available to graduate students in sciences relevant to plant nutrition and management of crop nutrients.

“We had a higher number of applicants for the Scholar Awards this year, and from a wider array of universities and fields of study,” said Dr. Terry L. Roberts, IPNI President. “And the qualifications of these students are impressive. The academic institutions these young people represent and their advisers and professors can be proud of their accomplishments. The selection committee adheres to rigorous guidelines in considering important aspects of each applicant’s academic achievements.”

The following 26 graduate students (listed by region) were named to receive the IPNI Scholar Award in 2013.

AUSTRALIA & NEW ZEALAND



Daniela M. Grijalva

Ms. Daniela Montalvo Grijalva is working toward her Ph.D. degree in Soil Science at The University of Adelaide-Waite Campus in Adelaide, Australia. Her dissertation title is “Improving phosphorus fertilizer efficiency in acid strongly phosphorus-sorbing soils.” One part of her research focuses on investigating different P fertilizer types (granular versus fluid) in enhancing P availability in strongly P-sorbing soils. The other part of her research aims at investigating the role of colloidal P from soil solutions on plant P uptake. For the future, Ms. Montalvo Grijalva plans to continue her research and education in fertilizer technology and plant nutrition.

CHINA



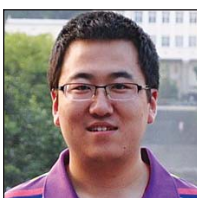
Wang Min

Ms. Wang Min is pursuing her Ph.D. in Plant Nutrition at Nanjing Agricultural University in Nanjing, China. Her dissertation is titled “Pathogenic mechanisms of soil-borne disease of cucumber fusarium wilt and the relationships with nitrogen nutrition.” The research aims to illustrate the pathogenic mechanism of cucumber fusarium wilt and how to effectively control the soil-borne disease by nutrient regulation. For the future, Ms. Wang plans to become an agricultural scientist and help prevent crop disease and improve crop yields.



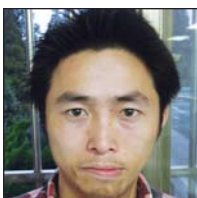
Xu Xinpeng

Mr. Xu Xinpeng is working toward his Ph.D. degree at Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences in Beijing, China. His dissertation is titled “Methodology of fertilizer recommendation based on yield response and agronomic efficiency for rice,” which aims to use Nutrient Expert® for Rice to make field-specific nutrient recommendations. Mr. Xu is quite interested in becoming an agricultural scientist in the future.



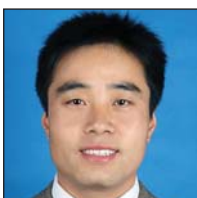
Wang Yin

Mr. Wang Yin is working toward a combined M.S.-Ph.D. degree in Plant Nutrition in the College of Resources and Environment at Huazhong Agricultural University, Wuhan, Hubei, China. His dissertation title is “Different responses of growth, yield and nutrient uptake to nitrogen, phosphorus, potassium fertilizer between direct-sowing and transplanting winter oilseed rape.” His objectives are to evaluate the effect of N, P and K fertilizers on crop performance of direct-sowed and transplanted oilseed rape and determine whether the crop nutrient management strategy needs to be changed according to the various establishment methods. Mr. Wang’s goal is to become an agricultural researcher and promoter in a university or a research institute to engage in agricultural research work and promote scientific techniques to improve crop yield and quality.



Lu Yuzhen

Mr. Lu Yuzhen has started his M.Sc. degree in Plant Nutrition at Institute of Soil Science, Chinese Academy of Sciences in Nanjing, China. His research work is focused on compositional characterization of rapeseeds by Fourier transform infrared photoacoustic spectroscopy (FTIR-PAS). The research aims to analyze some important quality indicators including N, P, K, Mg, oil content, fatty acid composition, and chlorophyll content in rapeseed, and better understand the compositional variation between seed kernel and seed coat, readily estimate the thickness of seed coat, and further optimize quantitative prediction models. Mr. Lu plans to earn his doctorate in Canada or the USA, and then serve in an agricultural research institute.



Zhao ZuoPing

Mr. Zhao ZuoPing is working toward his doctorate degree in Environmental Sciences at Northwest A&F University in Yangling, China. His dissertation is titled “Coupling effects of water and fertilizer on yield and quality of fuji apple and kiwi fruit.” The main objectives of this research are to assess the variation in soil fertility, evaluate fertilizer use efficiency in apple and kiwifruit orchards, establish predictors and classification systems of indigenous soil nutrient supply capacity, develop appropriate fertilizer recommendation methods, and estimate optimum fertilizer application rates for apple and kiwi fruit over large domains. Mr. Zhao intends to continue research and extension efforts to improve crop yields and farmer profits.

Abbreviations and Notes: N = nitrogen; P = phosphorus; K = potassium, Mg = magnesium.

EASTERN EUROPE AND CENTRAL ASIA



Elena Ustimenko

Ms. Elena Ustimenko completed her M.Sc. degree in Agronomy in 2011 at Stavropol State Agrarian University (SSAU) in Stavropol, Russia. She started the Ph.D. program and began to work as an Assistant in the Department of Agricultural Chemistry and Plant Physiology, SSAU, in the same year. The title of her Ph.D. dissertation is “Programming of winter wheat yields in the moderate precipitation zone based on optimization of mineral fertilizer use.” Several regional approaches to nutrient rate calculation and their impact on yield and quality of winter wheat are being compared in this research. For the future, Ms. Ustimenko’s goal is to continue her plant nutrition-related research and extension activities.

LATIN AMERICA



Facundo Tabbita

Mr. Facundo Tabbita is pursuing his doctorate degree at University of Buenos Aires in Buenos Aires, Argentina. He has also participated in an international exchange program at the University of California-Davis, USA. His doctoral dissertation is titled “Regulation through the gene Gpc-B1 on the nutrient recycling and senescence in wheat,” which aims to understand the translocation of nutrient and micronutrients to grain in wheat plants. The main objective of this research is to develop new strategies and tools to apply in wheat breeding quality programs and improve nutrition for the benefit of people. Mr. Tabbita aims to become a wheat breeder in the future.



Javier Coitiño López

Mr. Javier Coitiño López is working toward his master’s degree in Agronomy at The University of the Republic in Paysandú, Uruguay. His thesis is titled: “Spatial variability of soybean response to potassium fertilization.” The study will investigate how many variables are spatially distributed in the production environment characteristic of Uruguay, and how this spatial distribution can affect responses to K fertilization within a farm. For the future, Mr. Coitiño López wishes to pursue the ultimate goal of becoming an agricultural research scientist.



Esteban Abbona

Mr. Esteban Abbona is pursuing his doctorate degree at The University of La Plata in Buenos Aires province, Argentina. His research is examining the balances and fluxes of nutrients in the province of Buenos Aires from production systems through consumption in urban centers and final disposal. Because the development of sustainable agriculture needs to ensure nutrients for future generations, this research aims to provide guidance for policy decisions by evaluating the current nutrient fluxes and balances. Mr. Abbona’s goals are to complete his doctoral studies, continue his teaching and scientific pursuits to help build future professionals on sustainable agriculture, and to work on the regional analysis of soil resource conservation through modeling.



Amanda Silva Parra

Ms. Amanda Silva Parra is completing requirements for her doctorate degree in Agronomy at the University Estadual Paulista-UNESP “Julio de Mezquita Filho” in Jaboticabal, Brazil. Her dissertation title is “Balance of greenhouse gases (GHGs) in the conversion of conventional agricultural and livestock systems for agrosilvopastoral systems in the Andean region of Colombia.” Her study will first evaluate current emissions of methane, nitrous oxide, and carbon dioxide as affected by grazing management, fertilizer use, and other agricultural practices in conventional agricultural and livestock production system in the Andean region of Nariño, Southern Colombia. She will then compare the changes in emissions with alternatives such as agroforestry systems. Ms. Parra wishes to continue her research efforts on climate change in the future.

NORTH AMERICA



Charles Barrett

Mr. Charles Barrett is working toward his doctorate degree in horticultural sciences at University of Florida in Gainesville, USA. His research work is focused on the development of a plasticulture cabbage production system for improvement of best management practices (BMPs), environmental stewardship, and sustainability in Florida. The project will focus on designing and validating the plasticulture system to increase cabbage plant density; determining irrigation and N fertilizer requirements and application timing strategies; and adaptation and economic evaluation of the plasticulture system under commercial conditions compared to traditional seepage irrigated cabbage. Mr. Barrett’s goals are to work in extension and to apply innovative agricultural production strategies in developing countries where food and fiber needs are not adequately met.



Péter Kovács

Mr. Péter Kovács is pursuing his doctorate degree in Agronomy at Purdue University in West Lafayette, USA. His research focuses on shallow pre-plant anhydrous ammonia application direction effects on grain yield, N uptake, and plant-to-plant uniformity in both no-till and conventional tillage systems. His work also examines the effect of ammonia application timing and the associated horizontal placement on maize yield, N recovery efficiency and N use efficiency. Mr. Kovács received his M.Sc. degrees in Agricultural Engineering and Geographical Information Management at Szent István University (Hungary) and at Cranfield University (United Kingdom), respectively. In the future, he intends to take part in either further improving the technological side of precision farming tools and input delivery systems, or in assisting in the widespread utilization of these tools through collaboration with growers or academic university personnel.

NORTH AMERICA (continued)



Tai McClellan Maaz

Mrs. Tai McClellan Maaz is enrolled in a doctorate degree program in crop and soil sciences at Washington State University in Pullman, USA. Her thesis dissertation is “Residue decomposition and nitrogen cycling in a canola-pea-wheat cropping sequence within two agro-ecological zones of eastern Washington.” The research will identify the “right rate” of N required to attain economically optimum canola yields; determine overall N use efficiency for the cropping sequence; calculate N balances and analyze the interactive effects of crop species and N fertility on N balance, N mineralization and N cycling; identify properties driving residue decomposition patterns and net N mineralization/immobilization dynamics; and identify policies and economic tools that encourage the adoption of alternative crops. Mrs. Maaz desires to either work at an independent or academic institute or earn a second masters in economics, information systems, or graphic design.



Curtis Ransom

Mr. Curtis Ransom is working toward his M.S. degree in Environmental Science at Brigham Young University in Provo, Utah, USA. His research is focused on evaluating N use efficiency and environmental impacts of polymer-coated urea fertilizers in Kentucky Bluegrass. The primary goal of this research work is to determine the right time and rate of application of polymer-coated urea fertilizers to maximize plant N use efficiency. Mr. Ransom’s future goal is to work internationally helping alleviate human nutritional and hunger problems.



Jay Raymond

Mr. Jay Raymond is pursuing his Ph.D. degree in Natural Resources and Environment majoring in Forestry at Virginia Polytechnic Institute & State University in Blacksburg, USA. His dissertation is titled “The use of stable isotopes to trace the fate of applied nitrogen in forest plantations to evaluate fertilizer efficiency and ecosystem impacts.” His research work focuses on gaining a better understanding of the dynamics of applied N fertilizer through loblolly pine plantations to provide forest managers an improved knowledge on nutrient stewardship in these systems. Mr. Raymond’s career goals and objectives include research emphasizing the importance of soil nutrition in relation to the productivity of forest agro-ecosystems.

NORTH AFRICA



Mouna Labaied Bendaly

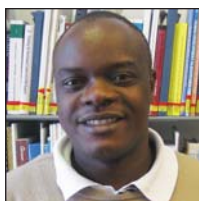
Ms. Mouna Labaied Bendaly is working toward her doctorate degree at National Agronomic Institute of Tunisia in Menzeh, Tunisia. Her research work is focused on evaluating the agronomic effectiveness of direct application of Gafsa phosphate rock as compared to commonly available soluble P fertilizers on yield and quality of citrus fruits. Ms. Bendaly wishes to pursue a career in soils and plant sciences.



Saâdia Batali

Ms. Saâdia Batali started her Masters degree in Agronomy at Hassan II Institute of Agronomy and Veterinary Medicine in Rabat, Morocco. Her research work is focused on evaluating the reliability and precision of soil tests and fertilizer recommendations given by different soil testing laboratories in Morocco. Ms. Batali’s career goal is to become a specialist in soil and water management.

SUB-SAHARAN AFRICA



Amos Robert Ngwira

Mr. Amos Robert Ngwira is pursuing his Ph.D. in Development Studies majoring in Agronomy at the Norwegian University of Life Sciences in Ås, Norway. His dissertation is titled “Agronomic, soil fertility and economic potentials of introducing conservation agriculture among smallholder farmers in Malawi.” The research aims to evaluate conservation agriculture practices under smallholder farming conditions in halting soil fertility decline, increasing and/or stabilizing yields, and, thereby, reducing farmers’ economic risk. Mr. Ngwira plans to teach graduate level courses and design integrated nutrient management strategies for higher yields, greater farmer profits, and better nutrient use efficiency.



Idowu Atoloye

Mr. Idowu Atoloye is working toward his Master’s degree at Obafemi Awolowo University in Ile-Ife, Nigeria. His thesis is titled “Effect of application of compost and inorganic nitrogen on microbial activities, nitrogen and phosphorus mineralization in an alfisol,” which aims to provide better understanding on the effects of blending compost with inorganic N on microbial activities and release of N and P for plant uptake. Mr. Atoloye wishes to be a professor of soil science with a focus on increasing food production in Africa without adversely impacting the soil ecosystem.

SUB-SAHARAN AFRICA (continued)



Tariro Gwandu

Ms. Tariro Gwandu is working towards her M.Phil degree at the University of Zimbabwe in Harare, Zimbabwe. Her dissertation title is “Translating integrated soil fertility management knowledge into crop productivity benefits through farmer learning and participatory action in Eastern Zimbabwe.” The major objective of this study is to evaluate the effectiveness of participatory information management and smallholder farmer learning alliances in promoting farmer use of integrated soil fertility management technologies to increase crop productivity. In the future, Ms. Gwandu’s goal is to become a distinguished extension specialist empowering farmers in using integrated soil fertility management for improved food security.

SOUTH ASIA



Anjani Kumar

Mr. Anjani Kumar is pursuing his Ph.D. in Agricultural System Management at Indian Institute of Technology in Kharagpur, India. The focus of his research is on nutrient and water management in aerobic rice systems, where he is evaluating nutrient management strategies and estimating the critical soil moisture potentials at the rice root zone depth for scheduling irrigation to sustain higher crop and water productivity. In the future, Mr. Kumar wants to pursue his research interests in crop modeling.



Mahesh Rajendran

Mr. Mahesh Rajendran is working toward his Ph.D. Agronomy degree at Tamil Nadu Agricultural University in Coimbatore, India. His research dissertation is titled “Best management practices to improve fertilizer and water use efficiency in sugarcane under subsurface drip fertigation system.” The research aims to provide a list of best management practices based on 4R Nutrient Stewardship to enhance sugarcane productivity and achieve higher nutrient- and water-use efficiencies. Mr. Mahesh aims to join a postdoctoral fellowship program to hone his skills in soil fertility and plant nutrition further with the goal of becoming a distinguished agricultural scientist.



Sonalika Sahoo

Ms. Sonalika Sahoo is working toward a doctorate degree in Soil Science and Agricultural Chemistry at Indian Agricultural Research Institute in New Delhi, India. Her dissertation is titled “Effect of nanoclay polymer composites loaded with urea and nitrification inhibitor on nitrogen use efficiency, nitrogen dynamics and soil properties.” The main objective of her study is to identify new slow release fertilizer products that will decrease nutrient losses and increase nutrient use efficiency to support the increasing food demand without deteriorating environment and ecosystem. For the future, Ms. Sahoo hopes to establish a career in agricultural research.



Naveen Gupta

Mr. Naveen Gupta is presently pursuing his doctorate program in Charles Sturt University, Australia on “Tillage and mulch effects on water balance and crop productivity of rice-wheat cropping system in northwest India.” He has also worked on nutrient management in rice and wheat grown with resource conservation technologies in Indo-Gangetic plains of India. He aims to become a Research Scientist in an international organization of repute in the near future and work on nutrient and water interactions in cereal crops especially under changing climatic scenarios.

SOUTHEAST ASIA



Alagie Bah

Mr. Alagie Bah is working toward his Ph.D. at Universiti Putra Malaysia in Serdang, Malaysia. His research dissertation is titled “Improved and efficient oil palm fertilization through controlled release fertilizers under tropical conditions.” The research aims to provide an improved and efficient K recommendation program for sustainable oil palm production in Malaysia. The study is planned to be conducted in three phases: 1) development of controlled-release K fertilizers (granular and briquette forms) in collaboration with an established fertilizer company, 2) establishment of K release pattern of the controlled-release fertilizer (CRF), and 3) test performance of the CRF on oil palm fresh fruit bunch yield, and their leaching and runoff loss potentials. Mr. Bah aims to contribute to local or regional agricultural communities to boost agricultural production and agribusiness management.

Funding for the scholar award program is provided through support of IPNI member companies, primary producers of N, P, K, and other fertilizers. Regional committees of IPNI scientific staff select the recipients of the IPNI Scholar Award. The awards are presented directly to the students at a preferred location and no specific duties are required of them.

Graduate students attending a degree-granting institution located in any country with an IPNI program region are eligible. Graduate students in the disciplines of soil and plant sciences including agronomy, horticulture, ecology, soil fertility, soil chemistry, crop physiology, and other areas related to plant nutrition are encouraged to apply.

More information is available from IPNI staff, individual universities, or from the IPNI website: www.ipni.net/awards. 