



FOR IMMEDIATE RELEASE

2016 IPNI SCHOLAR AWARD WINNERS

October 14, 2016 – Peachtree Corners, GA, USA -The International Plant Nutrition Institute (IPNI) has selected the winners of the 2016 Scholar Awards. A total of 36 graduate students, representing 14 countries, were chosen as IPNI Scholar Award recipients. Each winner receives the equivalent of US\$2,000.

“The selection committee was encouraged by the number and quality of applications it received,” said Terry L. Roberts, IPNI President. “Many countries and institutions were represented. The students are doing impressive work and will contribute immensely to the field of plant nutrition,” said Roberts.

Graduate students attending a degree-granting institution located in any country within an IPNI regional program are eligible. The award is available to graduate students in science programs relevant to plant nutrition science and the management of crop nutrients including: agronomy, horticulture, ecology, soil fertility, soil chemistry, crop physiology, environmental science, and others.

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. Funding for the scholar award program is provided through support of IPNI member companies, primary producers of nitrogen, phosphate, potash, and other fertilizers.

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

The winners are listed below by country and university/institution.

AFRICA

Tunisia

Ms. Amira Hachana, National Institute of Agronomy, Tunis, Tunisia.

Ph.D. Program: Diagnostic of the Biodiversity of Rhizosphere Microflora and its Interaction with *Rhizobium Leguminosarum* Nodulating Pea in Different Bioclimatic Areas of Tunisia.

Ghana

Mr. Bayou Bunkura Allito, Kwame Nkrumah University of Science and Technology, Kumasi, Ashanti, Ghana, Africa.

Ph.D. Program: *Rhizobium Strain* and Host-variety Interaction Effect on N₂ Fixation and Yield of Faba Bean in Southern Ethiopia.

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Zimbabwe

Ms. Muneta Grace Manzeke, University of Zimbabwe, Harare, Zimbabwe.

Ph.D. Program: Geospatial Variation of Bioavailable Micronutrients in Tropical Soils and its Effects on Crop Productivity and Human Nutrition.

ASIA

China

Dr. GU Chiming, Wuhan Botanical Garden of Chinese Academy of Science, Moshan, Wuchang, Wuhan, China.

Ph.D. Program: Study on Non-Point Pollution Condition and Control Measures in Danjiangkou Reservoir, Hubei, China.

Ms. LI Ting, Institute of Soil Science, Chinese Academic of Sciences, Nanjing, China.

Ph.D. Program: Composition and Bioavailability of Soil Available Potassium of Typical Farmland in China.

Mr. LIANG Guopeng, Chinese Academy of Agricultural Sciences, Beijing, China.

M.Sc. Program: Seasonal Patterns of Soil Respiration and Soil Biochemical Properties under Nitrogen Addition.

Mr. Khalid Mehmood, University of Chinese Academy of Sciences, Beijing, China.

Ph.D. Program: Amelioration of Acid Soils Using Low Energy Consuming Biochars Combined with Inorganic Fertilizers for Improved Crop Growth.

Ms. ZHANG Qian, Chinese Academy of Agricultural Sciences, Beijing, China.

Ph.D. Program: Effect of Organic Amendments and its Microbiological Mechanism under Rice-Wheat Rotation.

India

Ms. Ridham Kakar, Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni, Solan, Himachal Pradesh, India.

Ph.D. Program: Integrated Nutrient Management under Ginger-cauliflower Cropping Sequence in North-West Himalayas.

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FOR IMMEDIATE RELEASE

Mr. Kiran K.R., Indian Agricultural Research Institute, New Delhi, India.

Ph.D. Program: Mobilization of Soil Iron to Minimize Iron Deficiency Chlorosis of Soybean under Ambient and Elevated CO₂ and Temperature Conditions.

Mr. Rumesh Ranjan, Indian Agricultural Research Institute, New Delhi, India.

Ph.D. Program: Genetic Analysis and Identification of QTL's Influencing Nitrogen Use Efficiency in Wheat.

Ms. Pragyan Paramita Rout, Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu, India.

Ph.D. Program: Development and Standardization of Sensors for Soil Moisture Monitoring and Precision Nutrient Management for Growing Flower Crops Under Fertigation and Matric Suction Irrigation.

Mr. Vijayakumar Shanmugam, Indian Agricultural Research Institute, New Delhi, India.

Ph.D. Program: Potassium Management in Aerobic Rice–Wheat Cropping System.

Mr. Arunbabu Talla, Indian Institute of Technology, Kharagpur, West Bengal, India.

Ph.D. Program: Planting Time and Nitrogen Management for Improving Hybrid Rice Production under Changing Climate of Subtropical India.

Pakistan

Mr. Abdul Rehman, University of Agriculture, Faisalabad, Pakistan.

Ph.D. Program: Exploring the Role of Zinc Nutrition in Yield Improvement, Grain Biofortification and Resistance against Abiotic Stresses in Wheat.

Malaysia

Mr. Chuck Chuan Ng, University of Malaya, Kuala Lumpur, Malaysia.

Ph.D. Program: Soil-plant Interaction of Trace Elemental Metals in Vetiver Grass.

EASTERN EUROPE/MIDDLE EAST

Russia

Mr. Andrey Paratunov, Volgograd State Agrarian University, Volgograd, Russia.

M.Sc. Program: Tomato Fertigation in a Dry Steppe Zone of Volga-Don Interfluve.

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FOR IMMEDIATE RELEASE

Ms. Alena Ozheredova, Stavropol State Agrarian University, Stavropol, Russia.

Ph.D. Program: The Effect of Fertilizers and Technologies on Winter Wheat Production in Central Ciscaucasia.

Mrs. Anastasia Chobanu, Belgorod Agrarian University, Belgorod, Russia.

M.Sc. Program: The Effect of Fertilizers on Biological Indicators of Soil Fertility.

Turkey

Mr. Muhammad Asif, Sabanci University, Tuzla/Istanbul, Turkey.

Ph.D. Program: Impact of Climate Change on Wheat Nutrition and Physiology.

OCEANIA

Australia

Mr. Getachew Agegnehu Jenberu, James Cook University, Cairns, Queensland, Australia.

Ph.D. Program: Biochar, Compost and Biochar-compost: Crop Performance, Soil Quality and Greenhouse Gas Emissions in Tropical Agricultural Soils.

NORTH AMERICA

Canada

Ms. Carolyn Wilson, Dalhousie University, Halifax, Nova Scotia, Canada.

M.Sc. Program: Effect of Diverse Compost Products on Soil Quality and Potato Productivity.

United States

Ms. Sara Berg, South Dakota State University, Brookings, South Dakota, USA.

M.Sc. Program: Evaluation of Tillage and Cover Crop Impacts on Corn Nitrogen Requirements in Southeastern South Dakota.

Mr. John Breker, North Dakota State University, Fargo, North Dakota, USA.

M.Sc. Program: Recalibration of Potassium Soil Test for Corn in North Dakota.

Mr. Jarom Davidson, University of Arkansas, Fayetteville, Arkansas, USA.

M.Sc. Program: Validation of N-STaR Nitrogen Rate Recommendations and Evaluation of N-STaR Soil Sampling Procedures for Clay Soils in Arkansas.

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FOR IMMEDIATE RELEASE

Ms. Kelsey Hoegenauer, University of Arkansas, Fayetteville, Arkansas, USA.

Ph.D. Program: Using Cover Crops to Recycle Nutrients in an Arkansas No-Till System.

Ms. Sarah Mueller, Purdue University, West Lafayette, Indiana, USA.

Ph.D. Program: Supplemental Late-vegetative Nitrogen Application for High-yield Corn: Agronomic, Economic and Environmental Implications with Modern versus Older Hybrids.

Mr. Jared Spackman, University of Minnesota, Minneapolis, Minnesota, USA.

M.Sc. Program: Nitrogen Fertilizer Source, Timing and Rate Impacts on Maize Nitrogen Use Efficiency and Mineralization Potential of Minnesota Soils.

Ms. Elizabeth Trybula, Purdue University, West Lafayette, Indiana, USA.

Ph.D. Program: Crop Water Productivity Response to Potassium Rate Application in Humid and Semi-Arid Conditions.

SOUTH AMERICA

Argentina

Mr. Walter Carciochi, University of Mar del Plata, Balcarce, Buenos Aires, Argentina.

Ph.D. Program: Evaluation of Diagnosis Methods of Sulfur Availability in Maize.

Ms. Clara Milano, National Southern University, Bahia Blanca, Buenos Aires, Argentina.

M.Sc. Program: Biological Nitrogen Fixation of Native Legume Grasses Introduced to the Degraded Grasslands of Southwestern Buenos Aires Province, Argentina.

Mr. Martín Torres Duggan, University of Buenos Aires, Buenos Aires, Argentina.

Ph.D. Program: Forage Productivity Improvement under Manure, Rock Phosphate, and Zeolites Applications.

Brazil

Mr. Eduardo Cancellier, Federal University of Lavras, Lavras, Minas Gerais, Brazil.

Ph.D. Program: Development of Bio-based Coatings for Production of Controlled-Release Fertilizers and Availability of Controlled-Release Phosphorus.

Ms. Shively Los Galettos, State University of Ponta Grossa, Ponta Grossa, Parana, Brazil.

Ph.D. Program: Efficiency of Phosphate Fertilization as Influenced by the Application of Phosphogypsum in No-till System.

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FOR IMMEDIATE RELEASE

Ms. Lauren Menandro, Agronomic Institute of Campinas, Campinas, São Paulo, Brazil.

M.Sc. Program: Characterization, Agronomic and Industrial Recovery of Sugarcane Shoots and Old Leaves.

Mr. Saulo Augusto Quassi de Castro, University of São Paulo, Piracicaba, São Paulo, Brazil.

M.Sc. Program: Contribution of Nitrogen Fertilizer in Sugarcane Due to Crop Rotation, Straw Removal and Nitrogen Rates.

Brief biographical summaries for each of the winners follow:

AFRICA

Ms. Amira Hachana, National Institute of Agronomy of Tunis, Tunisia is working towards her Ph.D. in crop production. Her dissertation is titled *“Diagnostic of the Biodiversity of Rhizosphere Microflora and its Interaction with Rhizobium Leguminosarum Nodulating Pea in Different Bioclimatic Areas of Tunisia.”* The objective is to improve the production of pea and soil fertility in Tunisia through the selection of abiotic stress tolerant rhizobium-pea associations and the evaluation of their direct effect on the growth of pea, nitrogen fixation and the solubilization of inorganic phosphate. Ms. Hachana plans to work as a researcher in the field of rhizobiology and soil fertility in low-input agroecosystems.

Mr. Bayou Bunkura Allito, Kwame Nkrumah University of Science and Technology, Kumasi, Ashanti, Ghana, Africa, is earning his Ph.D. in soil science. His dissertation title is *“Rhizobium Strain and Host-variety Interaction Effect on N₂ Fixation and Yield of Faba Bean in Southern Ethiopia.”* Bayou’s research will provide information on making site-specific nutrient management decisions, which will improve the productivity of host-plants in targeted areas. One of his career goals as a soil scientist, is to assess sustainable solutions for soil related problems in crop productivity.

Ms. Muneta Grace Manzeke, University of Zimbabwe, Harare, Zimbabwe, is working towards her Ph.D. in soil geochemistry and micronutrient management. Her dissertation title is *“Geospatial Variation of Bioavailable Micronutrients in Tropical Soils and its Effects on Crop Productivity and Human Nutrition.”* Muneta’s work will contribute to a new thinking on how agronomic biofortification could be targeted on specific agro-ecologies to enhance human nutrition, in ways that are accessible to different farmer social groups. Ms. Manzeke would like to play a key role in manipulating science in agriculture to make nutritious foods more accessible to common people in developing countries, particularly in Africa.

ASIA

Dr. GU Chiming, Wuhan Botanical Garden of Chinese Academy of Science, Moshan, Wuchang, Wuhan, China, is completing his Ph.D. in ecology. His dissertation title is *“Study on Non-Point Pollution Condition and Control Measures in Danjiangkou Reservoir, Hubei, China.”* Chiming’s research experience has been focused on the relationship of crop production to the environment and

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ecosystems, best management practices for nutrient stewardship, and encouraging the concept of applying the right fertilizer, at the right rate, at the right time, and in the right place. Dr. Gu plans to work within an institute or college and continue his studies in plant nutrition science.

Ms. LI Ting, Institute of Soil Science, Chinese Academic of Sciences, Nanjing, China, is completing her Ph.D. in plant nutrition. Her dissertation title is *“Composition and Bioavailability of Soil Available Potassium of Typical Farmland in China.”* Ting’s research focus is on the mechanism of available potassium (AK) released from typical K-bearing minerals, the bioavailability of soil AK using intensive cropping experiment integrated with chemical analysis and the correlation between difference bioavailable AK with factors. She is a teacher at Sichuan Agricultural University and lectures courses through correspondence. In the future, Ms. Li hopes to study abroad to gain international academic experience.

Mr. LIANG Guopeng, Chinese Academy of Agricultural Sciences, Beijing, China, has completed his M.Sc. in soil science. His thesis title was *“Seasonal Patterns of Soil Respiration and Soil Biochemical Properties under Nitrogen Addition.”* Guopeng’s research was focused on the effect of agricultural management (application of straw and nitrogen fertilizer) on soil respiration and soil biochemical properties. Mr. Liang is now pursuing a Ph.D. in plant biology with a research topic concerning the response of the carbon cycle to climate change at the University of Oklahoma.

Mr. Khalid Mehmood, University of Chinese Academy of Sciences, Beijing, China, is earning his Ph.D. in agriculture. Khalid’s dissertation title is *“Amelioration of Acid Soils Using Low Energy Consuming Biochars Combined with Inorganic Fertilizers for Improved Crop Growth.”* Mr. Mehmood hypothesized that instead of using crop straws directly but converting to low energy consuming biochars, these byproducts could offer multidimensional opportunities to transform large scale agricultural waste streams from a financial and environmental liabilities to valuable assets. After his Ph.D., Khalid will continue teaching and pursuing research activities in his home country of Pakistan. He credits the Chinese Academy of Sciences for flourishing his knowledge and skills.

Ms. ZHANG Qian, Chinese Academy of Agricultural Sciences, Beijing, China, is working towards her Ph.D. in plant nutrition. Her dissertation title is *“Effect of Organic Amendments and its Microbiological Mechanism under Rice-Wheat Rotation.”* Qian’s research will contribute to exploring the underlying mechanism of the interaction between soil structure, microorganism and nutrition cycling. The outcome of this research would be of great practical significance for balanced fertilization and improved quality of cultivated land. Ms. Zhang plans to be an eligible agriculturalist or a teacher in college, where she can pass on all of knowledge she has gained to the next generation.

Ms. Ridham Kakar, Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni, Solan, Himachal Pradesh, India, is working towards her Ph.D. in integrated nutrient management. Her dissertation title is *“Integrated Nutrient Management Under Ginger-Cauliflower Cropping Sequence in North-West Himalayas.”* Ridham’s research has been undertaken to improve nutrient use efficiency, organic matter content, and optimization of fertilizer application. This research is working towards increased soil

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health and productivity and overall living standards for farmers. Her career goals are to continue with farmer-oriented research work in order to help the farming community with increasing their living standards.

Mr. Kiran K.R., Indian Agricultural Research Institute, New Delhi, India, is pursuing a Ph.D. in soil science and agricultural chemistry. His dissertation title is *“Mobilization of Soil Iron to Minimize Iron Deficiency Chlorosis of Soybean Under Ambient and Elevated CO₂ and Temperature Conditions.”* The objectives of Kiran’s research are to study the basis of iron (Fe) deficiency chlorosis in soybean genotypes, evaluate the effectiveness of different strategies to mobilize soil Fe and its impact on Fe deficiency chlorosis tolerance by soybean genotypes, and to study the effect of Fe mobilization strategy in enhancing bioavailability of Fe to soybean genotypes under ambient and elevated CO₂ and temperature conditions. After his Ph.D., one of Kiran’s goals is to conduct research on the transformation and dynamics of nutrients, especially in arid and semi-arid agro-ecosystems with respect to changing climate scenarios.

Mr. Rumesh Ranjan, Indian Agricultural Research Institute, New Delhi, India, is pursuing his Ph.D. in genetics and plant breeding. His dissertation title is *“Genetic Analysis and Identification of QTL’s Influencing Nitrogen Use Efficiency in Wheat.”* The objectives of Rumesh’s research are to identify the traits influencing nitrogen use efficiency, study the extent of variability existing for these traits in the germplasm, study the inheritance of traits influencing nitrogen use efficiency in wheat, and identify the putative QTLs for nitrogen use efficiency in wheat. Rumesh plans to disseminate the new era of technology to farmers, which will serve both them and their communities for economic prosperity and betterment as a whole.

Ms. Pragyan Paramita Rout, Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu, India, is pursuing her Ph.D. in soil science and agricultural chemistry. Pragyan’s dissertation title is *“Development and Standardization of Sensors for Soil Moisture Monitoring and Precision Nutrient Management for Growing Flower Crops Under Fertigation and Matric Suction Irrigation.”* Her research work aims at developing and standardizing various cost effective sensors for soil moisture monitoring and precision nutrient management (for flower crops in both greenhouse and field conditions). Upon completing her degree and pursuing a post-doctoral fellowship, Pragyan would like to build a career in precision agriculture using sensors for water management and nutrient management.

Mr. Vijayakumar Shanmugam, Indian Agricultural Research Institute, New Delhi, India, is working towards a Ph.D. in agronomy. His dissertation title is *“Potassium Management in Aerobic Rice–Wheat Cropping System.”* The objectives of Vijayakumar research are to find out the effect of rate, method, and time of potassium (K) application on growth and productivity of aerobic rice and wheat crops; assess the effect of K fertilization on grain quality and nutrient use efficiency of aerobic rice and wheat crops; estimate the residual effect of K fertilization on soil fertility; and work out the economics of different treatments. One of Vijayakumar future goals is to establish a career in agricultural research, with strong fundamentals in agronomy and soil science.

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Mr. Arunbabu Talla, Indian Institute of Technology, Kharagpur, West Bengal, India, is earning a Ph.D. in agronomy. His dissertation title is *“Planting Time and Nitrogen Management for Improving Hybrid Rice Production under Changing Climate of Subtropical India.”* His research is focused on mitigating the adverse impact of climate change on hybrid rice production in sub-tropical climates, by addressing location specific agro-adaptation technologies. Mr. Talla’s long-term goals involve the improvement of sustainable agricultural productivity in farmers’ fields, through precision agriculture. This includes site specific nutrient management, measuring nutrient losses, and improving nutrient management plans for higher input use efficiency.

Mr. Abdul Rehman, University of Agriculture, Faisalabad, Pakistan, is completing a Ph.D. in agronomy. His dissertation title is *“Exploring the Role of Zinc Nutrition in Yield Improvement, Grain Biofortification and Resistance against Abiotic Stresses in Wheat.”* The outcomes of this research will improve wheat productivity by encouraging zinc application in wheat and developing a cost effective technique. After completing his Ph.D., Abdul wants to pursue additional research in improving biofortification and resistance against abiotic stresses in rice, wheat, and chickpea through the application of micronutrients.

Mr. Chuck Chuan Ng, University of Malaya, Kuala Lumpur, Malaysia, is earning a Ph.D. in applied environmental sciences with a focus in heavy metals and soil-plant interaction. Chuck’s dissertation title is *“Soil-plant Interaction of Trace Elemental Metals in Vetiver Grass.”* His project involves a comprehensive experimental study of the soil-plant interaction between Vetiver grass and trace elemental metals. After finishing his Ph.D., Chuck plans to serve as an academic lecturer in a local tertiary institution and continue to work as an environmental research scientist in sustainable soil management in Malaysia.

EASTERN EUROPE/MIDDLE EAST

Mr. Andrey Paratunov, Volgograd State Agrarian University, Volgograd, Russia, is pursuing his M.Sc. The title of his thesis is *“Tomato Fertigation in a Dry Steppe Zone of Volga-Don Interfluve.”* The studies are conducted in a field experiment run under a cooperative project between IPNI and Volgograd State Agrarian University. Andrey has received several distinguished scholarships and awards during his educational studies. From 2013 to 2015 he won the 1st phase in Russian competition among students, post-graduates and young scientists of higher educational institutions, through the Ministry of Agriculture of Russia. He practiced in Germany under the DBV (Deutscher Bauernverband) program. Mr. Paratunov plans to continue his participation in these research activities.

Ms. Alena Ozheredova, Stavropol State Agrarian University, Stavropol, Russia, is working towards her Ph.D. in the Department of Agricultural Chemistry and Plant Physiology. The title of her thesis dissertation is *“The Effect of Fertilizers and Technologies on Winter Wheat Production in Central Ciscaucasia.”* Alyona has received a number of distinguished scholarships and awards during her educational program. In 2014 she won a Russian Competition among students of higher educational institutions through the Ministry of Agriculture of Russia. As a member of the university team she also won the Intellectual Game New Farmer (2016). After obtaining her Ph.D., she plans to continue

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research activities on crop management, apply for international training programs, and actively participate in extension efforts on crop nutrition.

Mrs. Anastasia Chobanu received a B.Sc. in Belgorod Agrarian University named after V. Gorin, Department of Agrochemistry, Soil Science and Ecology (2016). During the study, Anastasia was rewarded for academic scholarship for achievements in studies and science. The title of her M.Sc. thesis is *“The Effect of Fertilizers on Biological Indicators of Soil Fertility.”* The research includes field experiments conducted in Belgorod Agrarian University. She plans to become a scientist in plant nutrition and soil fertility.

Mr. Muhammad Asif, Sabanci University, Tuzla/Istanbul, Turkey, is completing his Ph.D. in soil nutrition and physiology. His dissertation title is the *“Impact of Climate Change on Wheat Nutrition and Physiology.”* Muhammad’s research is about the impact of climate change (elevated CO₂, increased temperature and drought) on macro and micro nutrient deficiencies and nutritional quality of bread wheat. Previous to this research, he had completed his M.Sc. in plant breeding and genetics. His goals for the future involve research in the field of plant nutrition, and he wished to offer his energies towards the cause of ensuring the food security of human-kind.

OCEANIA

Mr. Getachew Agegnehu Jenberu, James Cook University, Cairns, Queensland, Australia, is working towards his Ph.D. in soil science. His dissertation title is *“Biochar, Compost and Biochar-compost: Crop Performance, Soil Quality and Greenhouse Gas Emissions in Tropical Agricultural Soils.”* Getachew’s research in maize and peanut is showing agronomic advantages to the co-application of these nutrient resources. Based on his work and previous experience, Getachew’s future career goal is to contribute to improving crop productivity and food security through improved integrated soil fertility and plant nutrient management practices.

NORTH AMERICA

Ms. Carolyn Wilson, Dalhousie University, Halifax, Nova Scotia, Canada, is working towards her M.Sc. in agriculture. Her thesis title is the *“Effect of Diverse Compost Products on Soil Quality and Potato Productivity.”* Her thesis research compares the effect of five composts from a diversity of sources with a no compost control for their effects on tuber yield and soil quality and fertility. Carolyn’s career goals involve the promotion of sustainable agriculture and improved soil fertility management practices through extension and education. She also is interested in engaging youth in soil science through the development and delivery of engaging soil and agri-science related curriculum and resources through schools and independent groups (e.g., 4-H), and has an interest in supporting international efforts to improve soil fertility.

Ms. Sara Berg, South Dakota State University, Brookings, South Dakota, USA, is completing her Ph.D. in plant science which also has a soil science emphasis. Her dissertation title is *“Evaluation of*

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Tillage and Cover Crop Impacts on Corn Nitrogen Requirements in Southeastern South Dakota.” The study focuses on how conventional till methods versus long term no-till methods and cover cropping affect corn nitrogen response. Sarah is a member of the Phi Kappa Phi Honor Society and upon completion of her thesis dissertation has accepted a position as an agronomy field specialist with the South Dakota State University Experiment Station.

Mr. John Breker, North Dakota State University, Fargo, North Dakota, USA, is earning a M.Sc. in soil science. His thesis title is *“Recalibration of Potassium Soil Test for Corn in North Dakota.”* His research concerns conducting potassium (K) fertilizer rate trials evaluating corn yield responses to K and their relation to soil K tests. After completing his M.Sc., John plans to pursue a Ph.D. in soil science and eventually become a professor with a research/extension appointment at a land grant university.

Mr. Jarom Davidson, University of Arkansas, Fayetteville, Arkansas, USA, is completing his M.Sc. in soil fertility. Jarom’s thesis title is *“Validation of N-STaR Nitrogen Rate Recommendations and Evaluation of N-STaR Soil Sampling Procedures for Clay Soils in Arkansas.”* His research incorporates the validation of the N-STaR N-fertilizer rate recommendations for clay soils in Arkansas through 13 small plot field trials located on research stations and production fields. After completing his M.Sc., Jarom plans to develop a crop consulting business that encourages ethical and sustainable farming.

Ms. Kelsey Hoegenauer, University of Arkansas, Fayetteville, Arkansas, USA, is earning her Ph.D. in soil fertility. Her dissertation title is *“Using Cover Crops to Recycle Nutrients in an Arkansas No-Till System.”* The focus of her research is to investigate nutrient cycling by cover crops in Arkansas production systems. Kelsey previously earned her M.Sc. at Auburn University in agronomy. Through Kelsey’s education and experiences, she has developed the desire to become a research scientist studying soil and crops with an emphasis on soil fertility and soil conservation.

Ms. Sarah Mueller, Purdue University, West Lafayette, Indiana, USA, is working towards her Ph.D. in agronomy. Her dissertation title is *“Supplemental Late-vegetative Nitrogen Application for High-yield Corn: Agronomic, Economic and Environmental Implications with Modern versus Older Hybrids.”* The focus of the research is on the impact of planned, supplemental nitrogen (N) applications in late vegetative stages. Using small-plot field research, she is comparing 6 to 8 N rates applied at specific split timings. After completing her studies, Sarah plans to work in the research sector of the seed industry.

Mr. Jared Spackman, University of Minnesota, Minneapolis, Minnesota, USA, is completing his M.Sc. in soil science. His thesis title is *“Nitrogen Fertilizer Source, Timing and Rate Impacts on Maize Nitrogen Use Efficiency and Mineralization Potential of Minnesota Soils.”* His research helps to identify regional practices that identify best nitrogen (N) rates, timing of applications, and N sources that improve fertilizer use efficiency and protect sensitive ecosystems and environments from N pollution. After completing his M.Sc., Jared will pursue a Ph.D. in soil science at the University of Minnesota. He plans to eventually teach soil science and plant nutrition and continue to perform research concerning soil health.

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Ms. Elizabeth Trybula, Purdue University, West Lafayette, Indiana, USA, is completing her Ph.D. in nutrient management impacts on crop water use. Her dissertation title is *“Crop Water Productivity Response to Potassium Rate Application in Humid and Semi-Arid Conditions.”* Elizabeth’s dissertation research seeks to inform how potassium impacts the quantity of water used for crop production. She plans to pursue a faculty position to conduct original research that enhances discourse in nutrient and conservation management across diverse farming systems. Her goal is to build a field research, teaching, and meta-analysis program that explores pressing questions in nutrient management and water cycling in agroecosystems.

SOUTH AMERICA

Mr. Walter Carciochi, University of Mar del Plata, Balcarce, Buenos Aires, Argentina, is obtaining a Ph.D. in agricultural sciences. His dissertation title is *“Evaluation of Diagnosis Methods of Sulfur Availability in Maize.”* His work arises from the need for methodologies to predict sulfur deficiencies in the Pampas region of Argentina, and involves the evaluation of soil testing and plant analysis methodologies. Walter’s goals are to continue a career in science by providing useful information and knowledge for farmers and consultants.

Ms. Clara Milano, National Southern University, Bahia Blanca, Buenos Aires, Argentina, is pursuing a M.Sc. in agronomy. Her thesis is focused on the biological nitrogen fixation of native legume grasses introduced to the degraded grasslands of southwestern Buenos Aires province, Argentina. Clara is interested in the importance of healthy natural ecosystems key processes such as nutrient cycling. She looks to introduce elements of natural ecosystems into agroecosystems to improve their sustainability.

Mr. Martín Torres Duggan, University of Buenos Aires, Buenos Aires city, Argentina, is obtaining a Ph.D. in the College of Veterinary. His dissertation title is *“Forage Productivity Improvement Under Manure, Rock Phosphate, and Zeolites Applications.”* His research explores water and nitrogen dynamic and efficiency under joint applications of manure and zeolites as well as the phosphorus recovery from soils receiving mixtures of zeolites and phosphate rock. Martín would like to develop a professional career in research, teaching, and consulting in soil fertility and plant nutrition focused in 4R Nutrient Stewardship.

Mr. Eduardo Cancellier, Federal University of Lavras, Lavras, Minas Gerais, Brazil, is working toward his Ph.D. His dissertation title is *“Efficiency of Control Released Stabilized Urea for Corn Cultivated in Fertile Soils.”* The goal is to develop biodegradable coatings for production of controlled release fertilizers using biomaterials. After finishing his Ph.D., Eduardo will be seeking opportunities in developing new fertilizer technologies or adequate nutrient management for commercial field crops.

Ms. Shively Los Galettos, State University of Ponta Grossa, Ponta Grossa, Parana, Brazil, is working toward her Ph.D. Her dissertation title is *“Efficiency of Phosphate Fertilization as Influenced by the Application of Phosphogypsum in No-till System.”* The objective of Shively’s study is to evaluate the possible effect of phosphogypsum in phosphorus fertilization for soybean and wheat under no-till, with the hope that this results in a positive relationship. After finishing her Ph.D. program, Ms. Los Galettos intends to continue working on the efficiency of fertilizers in a position related to soil fertility and plant nutrition at a research or education facility.

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Ms. Lauren Menandro, Agronomic Institute of Campinas, Campinas, São Paulo, Brazil, is working toward her M.Sc. Her thesis title is “*Characterization, Agronomic and Industrial Recovery of Sugarcane Shoots and Old Leaves.*” Lauren’s goal is to promote a more adequate use of sugarcane straw in the field and/or the industry aiming the production of electricity and ethanol. Ms. Menandro has plans to continue her studies towards a Ph.D. and also moving forward to a Post Doc in the same area.

Mr. Saulo Augusto Quassi de Castro, University of São Paulo, Piracicaba, São Paulo, Brazil, is working toward his M.Sc. degree. Saulo’s thesis title is “*Contribution of Nitrogen Fertilizer in Sugarcane Due to Crop Rotation, Straw Removal and Nitrogen Rates.*” His goal is to evaluate the recovery of N fertilizer by sugarcane, as related to straw removal and rotation or not with a legume crop (*Crotalaria spectabilis*). After finishing his M.Sc., Saulo intends to continue studies by doing his Ph.D. and still work with nutrient efficiency in sugarcane, incorporating new variables into the study such as timing for fertilizer application and soil management

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