

Ignacio Agustín Colonna  
*Curriculum vitae – November 2014*

**Personal information**

Citizenship: Argentinean.

Present address: 25 de Mayo 2974, Pergamino, Buenos Aires, Argentina

Email: [ignacio.colonna@gmail.com](mailto:ignacio.colonna@gmail.com)

Phone numbers: *Home*: 54-2477-640258. *Cell*: 54-9-2477660945

**Key professional interests:** Agronomy, data analysis, field trial experiment design and execution, germplasm characterization, phenotyping methodology, environmental characterization, problem solving through quantitative approaches, teaching.

**Education**

- **Ph.D. candidate – Crop Sciences**, University of Illinois at Urbana-Champaign. 2001-2005. GPA: 3.97/4. Advisor: Dr. Don Bullock. Thesis area: Uncertainty in corn response to nitrogen fertilizer due to spatial and temporal variability.
- **Master of Science in Agronomy** – Purdue University. 1999-2001. GPA: 4/4. Advisor: Dr. Bob Nielsen. Thesis: Sampling and estimation of site-specific soil properties by geostatistical methods and remote sensing.
- **Agronomic Engineer (Ingeniero Agrónomo)** – University of Buenos Aires, Argentina. Coursework 1990-1994. GPA: 8.17/10 (Rank: 2<sup>nd</sup> in graduation class). Thesis 1996. Advisor: Eng. Alberto Soriano. Thesis area: Ecology and physiology of two polyploid Patagonian grasses.

**Professional experience**

- **2006-present:** Research Scientist at Pioneer Argentina SRL. Responsible for hybrid characterization and advancement for Argentina: Overall coordination of hybrid and inbred field trial planning, execution, data collection and analysis, including regulated trials. Responsible of hybrid advancement decisions for the temperate program in Pergamino, the new Cordoba breeding program and the North region testing program. Characterization work includes development of analytical tools based on environmental data and crop models to support corn hybrids positioning, and implementation of new technologies for phenotyping. Responsible for development of managed stress environments within Argentina and at remote sites in US and Brazil. Since 2013, support to the drought breeding program in Palmas, Tocantins, Brazil and coordination of the implementation of environmental characterization models for Brazil. Supervisor: Eng. Teresita Martín, Senior Research Manager for Argentina ([teresita.martin@pioneer.com](mailto:teresita.martin@pioneer.com)).
- **2005-2006:** Senior Research Associate at Pioneer Argentina SRL. Pergamino, Buenos Aires, Argentina. Responsible for field trial data analysis and experiment design.
- **2002-2004.** Teaching Assistant – Department of Crop Sciences, University of Illinois at Urbana-Champaign. Class: CPSC 540: Design and analysis of experiments in biology. *Course instructor:* Dr. Don Bullock. [dbullock@uiuc.edu](mailto:dbullock@uiuc.edu).
- **2001- 2005.** Research Assistant – Department of Crop Sciences, University of Illinois at Urbana-Champaign. Biometry and cropping systems group. *Advisor:* Dr. Don Bullock. [dbullock@uiuc.edu](mailto:dbullock@uiuc.edu)

- **1999-2001.** Agronomy Department – Purdue University. Site-specific characterization of corn and soybean growth and associated environmental factors (funding from Fulbright scholarship and Purdue University). *Advisor:* Dr. Robert L. Nielsen. [rnielsen@purdue.edu](mailto:rnielsen@purdue.edu).
- **1997-1999.** Hathor S.A. – Santa Isabel, Santa Fé, Argentina. Production Manager. Agricultural company with (at the time) 5000 ha of owned land dedicated to the production of commercial and seed corn, wheat, oats and soybeans. [www.hathor.com.ar](http://www.hathor.com.ar). *Company Director:* Mr. Héctor Cobelo. [hcobelo@hathor.com.ar](mailto:hcobelo@hathor.com.ar).
- **1996-1997.** Hathor S.A. Jr. Production Engineer. See description above.
- **1995-1996.** Dow Agrosiences. Technical and commercial assistant in the area of Venado Tuerto, Santa Fe, Argentina (Summer temporary position).
- **1993-1995.** Department of Plant Ecology and Physiology – College of Agronomy, University of Buenos Aires, Argentina. Research Scholarship for undergraduate students. . *Advisor:* Eng. Alberto Soriano (deceased in 1998).
- **1991-1992.** Biochemistry Department - College of Agronomy, University of Buenos Aires, Argentina. Teaching and Research Assistant. *Advisor:* Eng. Alberto Chiesa.

### ***Fellowships and awards***

- Richard H. and Elizabeth C. Hageman Endowed Graduate Research Fellowship. 2004 – 2005. Department of Crop Sciences, University of Illinois at Urbana-Champaign.
- Included in “An incomplete list of teachers ranked as excellent by their students”. University of Illinois at Urbana-Champaign. Spring Semester of 2004. Class taught: CPSC540: Design and analysis of experiments in biology – Computer lab section.
- M. B. Russell Memorial Award. 2001 - Award for outstanding international students. Department of Crop Sciences, University of Illinois at Urbana-Champaign.
- George Scarseth Travel Award. 2000 – Agronomy Department, Purdue University.
- Fulbright – Fundación Bunge y Born Scholarship for Masters in Agronomy and Food Sciences. 1999 – 2001.
- Award to the top 10 career GPA, College of Agronomy, University of Buenos Aires, Argentina. 1997. Class ranking: 2<sup>nd</sup> over 104 graduates.
- Special mention in the Dow Agrosiences Award to outstanding undergraduate theses, University of Buenos Aires,. 1996. College of Agronomy, University of Buenos Aires, Argentina.
- University of Buenos Aires Research Scholarship for undergraduate students 1993-1995. Department of Plant Ecology and Physiology – College of Agronomy, University of Buenos Aires, Argentina.

### ***Academic activities, public presentations and publications:***

- Co-director (with Dr. Lucas Borrás) of MSc Thesis for Leandro Freggiaro: “Variation in yield response to plant population in corn hybrids: Genetic and environmental effects and their interactions” . Universidad Nacional de Rosario, November 2014.
- Yao, H ; Tian, L.; Wang, G.; **Colonna, I.** (2014). Estimation of soil fertility using collocated cokriging by combining aerial hyperspectral imagery and soil sample data. *Applied Engineering in Agriculture* 30.1:113-121
- Special class: “Genotypic and environmental characterization in a breeding program”. In graduate course “Physiological bases for crop breeding” . September 2013. Director: Dr. Karina D’ Andrea, Escuela para Graduados Alberto Soriano, Facultad de Agronomía, Universidad de Buenos Aires.

- **Colonna, I**, P. Capristo and T. Sarlangue (2013). Environmental characterization and genotype selection for corn yield stability (in Spanish). Jornada Opciones de manejo para reducir la variabilidad en el rendimiento de soja, maíz y trigo. Universidad Nacional de Rosario, July, 2013. Coordinator: Dr. Lucas Borrás. Oral presentation.
- **Colonna, I** and M. Echagüe (2011). Analysis and use of the interaction between plant density, genotype and environmental factors (in Spanish). Jornada: Elección de densidad de siembra de Soja y Maíz. Universidad Nacional de Rosario, July 28th, 2011. Coordinator: Dr. Lucas Borrás. Oral presentation.
- Capristo, P, **I. Colonna**, T. Sundblad and T. Martin. (2007). Differential response of corn hybrids to plant density: variations in optimum strategy as a function of an environmental index (in Spanish). Primer Encuentro Red de Ecofisiología. SECYT, Mar del Plata, September 7<sup>th</sup>, 2007. Poster.
- **Colonna, I** and D. Bullock (2005). Temporal and Spatial Uncertainties in Corn Response to Environmental and Management Factors – a Cropping System Analysis Example. Western Society of Crop Science Meetings, June 19-23, 2005). Oral presentation by D. Bullock.
- **Colonna, I**, M. Ruffo and D. Bullock (2004). Regression of crop yield with soil and landscape attributes: an assessment of some common methods for dealing with spatially correlated residuals. American Society of Agronomy Annual Meeting. Seattle, Washington. Poster.
- Oliveira, M.F., **I. Colonna**, H.T. Prates, E.C. Mantovani, R.L. Gomide and R.S. de Oliveira Jr. (2004) Imazaquin herbicide sorption by an Oxytol under conventional and no-till management). Pesq. Agropec. Bras., Brasília, v.39. (In Portuguese)
- **Colonna, I**, M. Ruffo, G. Bollero and D. Bullock (2003). A comparison of geostatistical and spatial autoregressive approaches for dealing with spatially correlated residuals in regression analysis for precision agriculture applications. Proceedings for the 16th Conference on Applied Statistics in Agriculture. Kansas State University. Poster.
- Yao, H., Tian, L., Wang, G. and **I.A. Colonna**. (2003). Soil nutrient mapping by using aerial hyperspectral images and soil sampling data – A geostatistical approach. Paper 031046. American Society of Agricultural Engineers, Annual International Meeting.
- **Colonna I.A.**, R.L. Nielsen, D.E. Maier and D.K. Morris (2000). Field-scale spatial variability of grain composition in soybean and corn in eastern Indiana. Proceedings of the American Society of Agronomy Annual Meeting. Charlotte, North Carolina. Poster.
- **Colonna, I.A.**, K.W. Ross and R.L. Nielsen. (2000). Comparison of organic matter interpolated maps from 0.5 and 2.5-acre grids using geostatistics. Proceedings of the American Society of Agronomy Annual Meeting. Charlotte, North Carolina. Poster.
- **Colonna, I.A** y A. Soriano. (1994). Compared ecological behavior of two *Bromus* species with different ploidy level at two different plant communities.(in Spanish). Latin American Congress of Botany, Mar del Plata, Buenos Aires. Poster.

### **Languages**

Excellent oral and written expression in English. Native Spanish.

### **Use of computer programs**

Proficient user of several statistical programs including R and SAS, geographical information systems including MapInfo, QGIS and ArcGIS, plus standard spreadsheet, word processing and presentation software such as Microsoft Office.

### **Other activities**

- Reviewer of scientific manuscripts for *Agronomy Journal*, American Society of Agronomy (ASA), 2007-2008.

- President of the Argentinean Association at Urbana-Champaign 2003-2004. Approx. 150 members.
- Graduate student representative to the Teaching Committee. 2003-2004. Department of Crop Sciences, University of Illinois at Urbana-Champaign.
- Coordinator of the parent association at Colegio San Pablo, Pergamino. 2010-2012.