
PERSONAL DATA

Name: María Elena OTEGUI

Degrees: Agr. Eng. UBA, Argentina, MSc Mar del Plata, Argentina, Dr. Orsay, France

Postdoc: USDA-ARS, Morris, MN, USA.

PRESENT PROFESIONAL POSITIONS

- Professor at Department of Crop Science (Producción Vegetal), Faculty of Agronomy, University of Buenos Aires (FAUBA)
- Principal Scientist, Institute for Agricultural Plant Physiology and Ecology (IFEVA), National Council for Research (CONICET).
- Associate Editor of Crop Science, USA.

ACADEMIC BACKGROUND

• PUBLICATIONS
General overview of international publications

I have **co-edited 4 scientific books**, one in New York (USA) and the rest in Argentina, **and published** 14 book chapters and 45 papers in SCI-indexed journals. My H-index at April 2010 was 18 considering only quoted papers.

Most recent international publications

In italics the name of graduate students or CONICET Scientists under my advice or co-advice at time of publication

SCI Papers published (published in last 4 years, from Jan 2006 to Dec 2009).

D'Andrea, K.E., M.E. Otegui, A.G. Cirilo, and G. Eyhérabide. 2009. Ecophysiological traits in maize hybrids and their parental inbred lines: Phenotyping of responses to contrasting nitrogen supply levels. *Field Crops Res.* 114: 147-158.

Haro, R.J., J.L. Dardanelli, M.E. Otegui, D.J. Collino. 2008. Seed yield determination of peanut crops under water deficit: Soil strength effects on pod set, the source-sink ratio and radiation use efficiency. *Field Crops Res.* 109:24-33.

Gambín, B.L., L. Borrás, and M.E. Otegui, 2008. Kernel weight dependence upon plant growth at different grain-filling stages in maize and sorghum. *Australian Journal of Agric. Res.* 59 (3):280-290.

D'Andrea, K.E., M.E. Otegui, and G.A. Cirilo. 2008. Kernel Number Determination Differs among Maize Hybrids in Response to Nitrogen. *Field Crops Res.* 105:228-239.

D'Andrea, K.E., M.E. Otegui, and A.J. de la Vega. 2008. Multi-attribute responses of maize inbred lines across managed environments. *Euphytica*: 162:381-394.

M. Uribe Larrea, J. Cárcova, L. Borrás, and M.E. Otegui. 2008. Enhanced kernel set promoted by synchronous pollination determines a tradeoff between kernel number and kernel weight in maize. *Field Crops Res.* 105: 172-181.

Pagano, E., S. Cela, G.A. Maddonni, and M.E. Otegui. 2007. Intra-specific competition in maize: ear development, flowering dynamics and kernel set of early established plant hierarchies. *Field Crops Res.* 102:198-209.

- Haro, R.J., **M.E. Otegui**, D.J. Collino, and J.L. Dardanelli. 2007. Environmental effects on seed yield determination of irrigated peanut crops: Links with radiation use efficiency and crop growth rate. *Field Crops Res.* 103:217-228.
- Gambín, B.L., L. Borrás, and **M.E. Otegui**. 2007. Kernel Water Relations and Duration of Grain Filling in Maize Temperate Hybrids. *Field Crops Res.* 101:1-9.
- Gambín, B.L., L. Borrás, and **M.E. Otegui**. 2007. Is maize kernel weight limited by its capacity to expand? *Maydica* 52 (4):431-441.
- Cárcova, J. and **M.E. Otegui**. 2007. Ovary Growth and Maize Kernel Set. *Crop Science* 47:1104-1110.
- Maddonni, G.A., A.G. Cirilo, and **M.E. Otegui**. 2006. Row width and maize grain yield. *Agron.J.* 98:1532-1543.
- Maddonni, G.A. and **M.E. Otegui**. 2006. Intra-specific competition in maize: contribution of extreme plant hierarchies to grain yield, grain yield components and kernel composition. *Field Crops Res.* 97:155-166.
- Luque, S.F., A.G. Cirilo, and **M.E. Otegui**. 2006. Genetic gains in grain yield and related physiological attributes in Argentine maize hybrids. *Field Crops Res.* 95:383-397.
- Gambín, B.L., L. Borrás, and **M.E. Otegui**. 2006. Source-sink relations and kernel weight differences in maize temperate hybrids. *Field Crops Res.* 95:316-326.
- D'Andrea, K.E., **M.E. Otegui**, A.G. Cirilo, and G. H. Eyherávide. 2006. Genotypic Variability in Morphological and Physiological Traits among Maize Inbred Lines. Nitrogen Responses. *Crop Sci.* 46:1266-1276.

Chapters in books

- D'Andrea, K.E., **M.E. Otegui**, A.G. Cirilo, and G. Eyherávide. 2010. Ecofisiología aplicada al mejoramiento de maíz orientado a ambientes deficitarios en nitrógeno. In: *'Avances en ecofisiología de cultivos de granos'*. Editors: Miralles, D.J.; Aguirrezábal L.N., **Otegui, M.E.**, Kruk, B.C. & Izquierdo N. Editorial Facultad de Agronomía, UBA, Buenos Aires, Argentina, ISBN: 978-950-29-1215-8.

• PARTICIPATION IN INTERNATIONAL COORDINATED RESEARCH PROJECTS

FONTAGRO (International Fund for Agricultural Technology of Spain, Latin-American and Caribbean countries). 2009-2012. **Mitigar el Efecto de Altas Temperaturas en la Productividad de Maíz**. Code FTG-0831 **GA Slafer, Scientific Coordinator of the consortium** [4 partners of 3 different countries] & **Principal Researcher** of Partner 3, Univ of Buenos Aires.

In addition I am currently responsible (IP) of individual projects funded by (i) the National Agency for the Promotion of Science and Technology of Argentina –ANPCyT- (one), (ii) the CONICET (one), and (iii) the UBA (one)

• PARTICIPATION IN SCIENTIFIC COMMITTEES (last four years)

- * Member of the Advisor Committee for Doctorate Studies of the School for Graduate Studies of FAUBA (since 2009)
- * Chair of the Advisor Committee in Agricultural Sciences of CONICET-Argentina (2008)
- * Member of the Advisor Committee in Agricultural Sciences of CONICET-Argentina (2007)
- * Co-director of the School for Graduate Studies of FAUBA (2005-2008)

* I have been Referee of various international journals including
 Field Crops Research
 European Journal of Agronomy
 Journal of Arid Environments
 Plant Growth Regulation
 Crop Science
 Agronomy Journal
 Revista Brasileira de Fisiología Vegetal

• **THESIS SUPERVISED AND PARTICIPATION IN MASTERS OR DOCTORATE STUDIES**

I was main supervisor of 5 PhD and 3 MSc (by thesis) students (already finished).
 I am Executive Coordinator of the 'Specialization Program in Plant Breeding' at the School for Graduate Studies of FAUBA.
 I am director and lecturer in three regular courses at the School for Graduate Studies of FAUBA.

- 'Crop Physiology' (4 weeks every year, full-time)
- 'Physiological Bases for Crop Breeding' (2 weeks every year, full-time)
- 'Simulation Models for Agronomic Applications' (2 weeks each two years, full-time)

• **INVITED PRESENTATIONS IN INTERNATIONAL SCIENTIFIC EVENTS**
 (last four years)

- Nitrogen use efficiency in maize breeding. Conference. In: International Workshop on 'Crop Physiology Applied to Research on Grain Yield and Grain Quality Determination'. 7 Sep, 2007. RAICES Network, Mar del Plata, Argentina.
- Physiological responses to plant growth regulators related to ethylene metabolism in maize crops grown under abiotic stress. Conference. In: Ethylene Suppression in Crop Yield Formation, Symposium organized by the Seed Physiology, Production & Technology section (C04) of Crop Sci. Soc. of America. 2007 International Annual Meeting of ASA-CSSA-SSSA. 5 Nov, 2007. New Orleans, Louisiana, USA.
- Physiological Bases in Grain Crops Breeding: History and State of the Art. Plenary Conference. In: Argentine-Brazilian Meeting of Plant Physiology. 21 Sep, 2008. Rosario, Santa Fe, Argentina.
- Physiological Bases for Water Management in Grain Crops under Dryland Farming. Conference. In: 'Primer Simposio Nacional de Agricultura de Secano', Fac. de Agronomía UDELAR (Uruguay) e IPNI Cono Sur. 17 Sep, 2009, Paysandú, Uruguay.
- Physiological responses of corn to ethylene and 1-MCP. Seminar. In: Invinsa Technical Forum. 20 Jan, 2009. Greensboro, NC, USA.
- Kernel number determination in maize: main results from crop physiology research developed in Argentina during the past 15 years. Seminar. 26 March, 2009. Univ. of Lleida, Lleida, España.
- Invinsa in corn - heat stress protection. Seminar. In: Invinsa Research Forum. 27 Jan, 2010. Philadelphia, PA, USA.
- Kernel number determination in maize: main results from crop physiology research developed in Argentina during the past 15 years. Seminar. 3 May, 2010. CIMMyT, México.

- **OTHER MERITS** (last four years)

Undergraduate lecturing on Crop Physiology (Professional cycle): 2-month course, 6 hours per week, every year at FAUBA.

Courses for Extension Services:

- ‘Maize physiology’. Course for professionals and technicians organized by the National Institute of Agricultural Technology (INTA). 11 hs. 1 Aug, 2006. La Carlota, Córdoba, Argentina.
- ‘Physiological Bases in Crop Production: general concepts and resource use’. In: Actualization Program for Technical Advisors of FUNDACREA (Fundación de los Consorcios Regionales de Experimentación Agropecuaria). One day in a 6-day course. 28 Aug, 2007. Buenos Aires, Argentina. (www.crea.org.ar)
- ‘Maize Physiological Bases for Crop Management’. In: Actualization Program for Technical Advisors of FUNDACREA. One day in a 6-day course. 26 Aug, 2008. Buenos Aires, Argentina.
- ‘Maize physiology’. Course for professionals and technicians organized by Dow AgroSciences Argentina. Full-time, 18-20 de agosto de 2009. Colón, Buenos Aires, Argentina.
- ‘Physiological Bases of Water Management’. In: Actualization Program for Technical Advisors of FUNDACREA. One day in a 6-day course. 29 de Sep, 2009. Buenos Aires, Argentina.
- ‘Maize physiology’. Course for professionals and technicians organized by Pioneer HiBred Argentina. Full-time, 6-7 Jan, 2010. Salto, Buenos Aires, Argentina.
- ‘Maize physiology’. Course for professionals and technicians organized by Syngenta and AACREA. 21 June, 2010. Ramallo, Buenos Aires, Argentina.

Chapters and Papers in Extension Books and Journals

- Cirilo, A.G. y **M.E. Otegui**. 2006. El cultivo de maíz y la intensificación de la agricultura en la región Pampeana: intercultivos y dobles cultivos. Revista Horizonte. ISSN 1668-3072, Año 3, Nro. 12:6-13.
- **Otegui, M.E.**, Maddonni, G.A. y Cirilo, A.G. 2007. Generación del rendimiento en maíz. Revista Horizonte. ISSN 1668-3072, Año 3, Nro. 16:20-26.
- **Otegui, M.E.** 2008. El agua y la producción de los cultivos: Captura y uso del agua. Análisis comparado y factores que las afectan. Resúmenes Mundo Agro 2008.
- **Otegui, M.E.** and F.H. Andrade. 2008. Determinantes del rendimiento en el cultivo de maíz. In: Satorre, E.H. (ed.), Producción de maíz. AACREA, ISBN 978-987-1513-00-0. Argentina. pp. 15-22.
- **Otegui, M.E.** 2009. Bases ecofisiológicas para el manejo del agua en cultivos para grano conducidos en secano. Informaciones Agronómicas 44 (4): 16-20. ISSN: 1666-7115. On-line version: [http://www.ipni.net/ppiweb/iaarg.nsf/\\$homepage/\\$first](http://www.ipni.net/ppiweb/iaarg.nsf/$homepage/$first)
- Dardanelli, J.D. and **M.E. Otegui**. 2009. El agua y la producción de granos en sistemas extensivos en siembra directa. In: Balsategui, J. y Satorre, E.H (eds.), Siembra Directa. AACREA, ISBN: 978-987-1513-03-1, pp. 41-45.
- **Otegui, M.E.** 2009. Bases ecofisiológicas para el manejo del agua en cultivos para grano conducidos en secano. 2009. In: Hoffman, E., Ribeiro, A., Ernst, O. y García,

F.O. (eds). Primer Simposio Nacional de Agricultura de Secano. Universidad de la República, Uruguay. ISBN: 978-9974-00-583-9. pp: 7-15.

Extension Conferences

- Aspectos clave de la estructura espacial y temporal de los cultivos: El uso de los recursos. Mundo Agro 2006. Extension Congress organized by SEMA, 22 June, 2006. Hilton Puerto Madero, Buenos Aires, Argentina (www.serviciosymarketing.com)
- Ecofisiología del cultivo de maíz. Symposium Organized by Syngenta. 2 y 3 de agosto de 2006. Hotel Plaza Real, Rosario, Argentina.
- Fundamentos, posibilidades y limitaciones para la intensificación del cultivo de maíz: Híbridos, nutrición, densidad. Mundo Agro 2007. Extension Congress organized by SEMA, 27 June, 2007. Hilton Puerto Madero, Buenos Aires, Argentina.
- Manejo para altas producciones de maíz. Otegui, M.E. Jornada 'Maíz 2007'. 1 Aug, 2007. Sheraton Hotel, Córdoba, Argentina.
- El agua y la producción de los cultivos: Captura y uso del agua. Análisis comparado y factores que las afectan. Mundo Agro 2008. Extension Congress organized by SEMA, 11 Sep, 2008. Sheraton Mar del Plata, Buenos Aires, Argentina,
- Elección de Híbridos en Maíz. Mundo Soja-Maíz 2010. Extension Congress organized by SEMA. 15 June, 2010. Catholic Univ. of Argentina, Puerto Madero, Buenos Aires, Argentina.

Other details at <http://www.ifeva.edu.ar/>