Roxana Savín

Catedràtica Contractada

Personal Information

Position: Catedràtica Contractada

Area of expertise: Agronomia

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University degrees

· Doctorat, Universitat de Melbourne, Australia, 1996
· Magister Scietiae, Universidad de Buenos Aires, Argentina, 1993
· Enginyera Agrònoma, Universidad de Buenos Aires, Argentina, 1988

Previous activities

· 1998 – 2003. Docente e investigadora, Cátedra de Cerealicultura, Departamento de Producción Vegetal, Facultad de Agronomía, Universidad de Buenos Aires.
· 1998 – 2003. Investigadora de la Carrera de Investigador Científico del CONICET (Consejo Nacional de Investigaciones Científicas y Técnicas · de Argentina).
· 2003 – 2005. Investigadora Ramón y Cajal del Departament de Producció Vegetal i Ciència Forestal de la

Universitat de Lleida.
· 2005-2017. Professora Agregada Permanent del Departament de Producció Vegetal i Ciència Forestal de la UdL.
· 2017-Actualitat. Catedràtica contractada, Departament de Producció Vegetal i Ciència Forestal de la UdL

Research

La meva investigació es centra a ampliar la comprensió actual de les bases fisiològiques del rendiment i la qualitat dels principals cultius, especialment els cereals (i) *Desenvolupament del cultiu*: interrelacions entre el desenvolupament i el rendiment. (ii) *Creixement del cultiu:* acumulació i partició de matèria seca, economia de nitrogen, relacions hídriques, equilibris source-sink. (iii) *Qualitat del gra*: respostes a estressos ambientals, acumulació i ràtios de components particulars.

Teaching

· APLICACIONS BIOTECNOLÒGIQUES PER A LA MILLORA DE LA PRODUCTIVITAT DELS CULTIUS	Grau en Biotecnologia
· CULTIUS EXTENSIUS	Grau en Enginyeria Agrària i Alimentària
· TECNOLOGIES DE LA PRODUCCIÓ VEGETAL	Grau en Enginyeria Agrària i Alimentària
· MILLORA DE CARACTERS ESPECÍFICS	Màster Universitari en Millora Genètica Vegeta

Recent Publications

Research ID C-7646-2011; **Orcid code** 0000-0002-4811-5021

H-index=24 (Web of Science-Core Collection), Setembre 2017

Ferrante, A., **Savin, R**. & Slafer, G.A., 2010. Floret development of Durum wheat in response to nitrogen availabilities. Journal of Experimental, 61:4351-4359.

Cossani, M.C., Slafer, G.A. & **Savin, R**., 2010.Co-limitation of nitrogen and water, and yield and resource-use efficiencies of wheat and barley. Crops & Pasture Science 61: 844-861.

Cossani, M.C., Slafer, G.A.& **Savin, R.**, 2011. Do barley and wheat (bread and durum) differ in grain weight stability through seasons and water-nitrogen treatments in a Mediterranean location? Field Crops Research 121: 240-247.

Pedro, A., **Savin, R**., Habash, D.Z. & Slafer, G.A., 2011 Physiologial attributes associated with yield and stability in selected lines of a durum wheat population. Euphytica 180: 195-208.

Cossani, M.C., Slafer, G.A.& **Savin, R.**, 2012. Nitrogen and water use efficiencies of wheat and barley under a Mediterranean environment in Catalonia. Field Crops Research 128:109-118.

Pedro, A., **Savin, R**., Parry, M. & Slafer, G.A., 2012. Selection for high grain number per unit stem length through four generations from mutants in a durum wheat population to increase yields of individual plants and crops. Field Crops Research 129: 59-70.

Ferrante, A., **Savin, R**. & Slafer, G.A., 2012.Differences in yield physiology between modern, well adapted durum wheat cultivars grown under contrasting conditions. Field Crops Research 136: 52-64.

Pedro, A., **Savin, R**., & Slafer, G.A., 2012. Crop Productivity as related to single-plant traits at key phonological stages in Durum wheat. Field Crops Research 138: 42-51.

Ferrante, A., **Savin, R**. & Slafer, G.A., 2013. Floret development and grain setting differences between modern durum wheats under contrasting nitrogen availability. Journal of Experimental 64: 169-184.

Ferrante, A., **Savin, R**. & Slafer, G.A., 2013. Is floret primordia death triggered by floret development in durum wheat?. Journal of Experimental 64:2859-2869.

Serrago, R.A., Alzuelta, I., **Savin, R**. & Slafer, G.A., 2013. Understanding grain yield responses to source-sink ratios during grain filling in wheat and barley under contrasting environments. Field Crops Research 150: 42-51.

Albajes R, Cantero C., . Capell T., Christou P., Galceran J., Lopez-Gatius F., Marin S, Martin O., Motilva Ma-J., Nogareda C., Peman J., Puy J., Recasens J., Romagosa I., Romero Ma-P., Sanchis V., **Savin R**., Slafer GA, Soliva R., Vinyas I., Voltas J. 2013. Building bridges: An integrated strategy for sustainable food production throughout the value chain. Molecular Breeding 32:743–770.

Hall. A.J., **Savin, R**. & Slafer, G.A., 2014. Is time to flowering in wheat and barley influenced by nitrogen?. A critical appraisal of recent published reports.European Journal of Agronomy 54:40-46.

Slafer, G.A., **Savin, R**. & Sadras, V.O., 2014. Coarse and fine regulation of wheat yield components in response to genotype and environment. Field Crops Research 157: 71–83.

Abeledo, L.G., **Savin, R**. & Slafer, G.A., 2014. Leaf photosynthesis during grain filling under Mediterranean environments: are barley or traditional wheat more efficient than modern wheats? Journal of Agronomy & Crop Science 200:172-182.

Ordóñez, R.A. **Savin, R**. & Slafer, G.A., 2015.Genetic variation in the critical specific leaf nitrogen maximising yield among modern maize hybrids. Field Crops Research 172: 99-105. Marti, J., **Savin, R**. & Slafer, G.A., 2015. Wheat yield as affected by length of exposure to waterlogging during stem elongation. Journal of Agronomy & Crop Science 201: 473-486.

Ferrante, A., **Savin, R**. & Slafer, G.A., 2015. Relationship between fruiting efficiency and grain weight in durum wheat. Field Crops Research 177:109-116.

Slafer, G.A., Elia,M., **Savin, R**., García, G.A., Terrile, I.I., Ferrante, A., Miralles, D.J. & González, F.G., 2015. Fruiting efficiency: an alternative trait to further rise wheat yield. Food and Energy Security 4:92-109. (DOI 10.1002/fes3.59)

Ordóñez, R.A. **Savin, R**., Cossani, C.M. & Slafer, G.A., 2015. Yield response to heat stress as affected by nitrogen availability in maize. Field Crops Research 183: 184-203.

Elazab, A., Ordóñez, R.A., **Savin, R**., Slafer, G.A & Araus, J.L., 2016. Detecting interactive effects of N fertilization and heat stress on maize productivity by remote sensing techniques. European Journal of Agronomy 73: 11-24.

Elia,M., **Savin, R**. & Slafer, G.A., 2016. Fruiting efficiency in wheat: physiological aspects and genetic variation among modern cultivars. Field Crops Research 191: 83-90.

Mayer, L., **Savin, R**., Maddonni, G.A., 2016. Heat stress during grain filling modifies kernel protein composition in field-grown maize. Crop Science 56: 1890-1903.

Zanga, D., Capell, T., Slafer, G.A., Christou, P., **Savin, R**., 2016. A carotenogenic mini-pathway introduced into white corn does not affect development or agronomic performance. Sci Report Sci Report 6, Article number: 38288 doi:10.1038/srep38288.

Ferrante, A., Cartelle, J., **Savin, R**., Slafer, G.A., 2017. Yield determination, interplay between major components and yield stability in a traditional and a contemporary wheat across a wide range of environments. Field Crops Research 203: 114-127.

Ochagavía, H., Prieto, P., **Savin, R.,** Griffiths, S, Slafer G.A., 2017. Duration of developmental phases, and dynamics of leaf appearance and tillering, as affected by source and doses of photoperiod insensitivity alleles in wheat under field conditions. Field Crops Research 214: 45-55.

Capitols de llibres

Savin, R. & Slafer, G.A.(2010).Agricultural production and yield. In: *Agricultural Sciences: Topics in Modern Agriculture*. Editors: A. González-Fontes, A. Gárate & I. Bonilla, Studium Press LLC, Houston, TX, USA, pp 291-304. ISBN 1-933699-48-5.

Savin, R. (2010). Estrés abiótico y calidad en cereales de invierno. 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, pp 201-210, ISBN: 978-950-29-1215-8.

Slafer, G.A., Sadras, V.O. & **Savin, R**. (2010).Retroalimentación entre componentes del rendimiento en trigo. 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, pp. 277-285, ISBN: 978-950-29-1215-8.

Savin, R. & Aguinaga, A. (2011). Los requerimientos de la industria: Calidad comercial e industrial y sus determinantes**.** In: *Cebada cervecera*. Editors: D.J. Miralles, R. L. Benech-Arnold & L.G. Abeledo. Editorial Facultad de Agronomía, UBA, Buenos Aires, Argentina, pp. 205-241, ISBN: 978-987-9260-84-5.

Slafer, GA. & **Savin, R.** (2011) Limitantes a la expresión del rendimiento potencial asociadas al estrés térmico. In: Limitaciones para la productividad de trigo y cebada. Editors: Castro, A., Hoffman, E. & Viega, L. Editorial Facultad de Agronomía, R. del Uruguay, pp. 11-20. ISBN 978-9974-0-0723-9

Serrago, R., Alzueta, I, **Savin, R** & Slafer, GA. (2011). Alteraciones en la relación fuente-destino y su impacto sobre el peso y la calidad de los granos en cultivos de trigo pan y cebada cervecera. In: Limitaciones para la productividad de trigo y cebada. Editors: Castro, A., Hoffman, E. & Viega, L. Editorial Facultad de Agronomía, R. del Uruguay, pp. 179-185. ISBN 978-9974-0-0723-9.

Rondanini, D.P., Borrás, L. & **Savin, R**. (2012). Grain quality in oil and cereal crops. In: Encylopedia of Sustainability Science and Technology. Section Editors Paul Christou, **R. Savin**, Editor R. Meyer, Editorial Springer ISBN 978-1-4419-0852-0. pp. 4550-4563.

Savin, R., Slafer, G.A. & Albrizio, R. (2012). Barley. In: Crop yield response to water, P.Steduto, T.C. Hsiao, E. Fereres and D. Raes (eds). Irrigation and Drainage Paper N. 66. FAO, Rome, pp. 134-141. ISBN 978-92-5-107274-5.

Savin, R., Cossani, M.C., Abeledo, L.G., Slafer, G:A. (2013) Estabilidad del rendimiento de trigo y cebada en una zona mediterránea y uso de la fertilización nitrogenada para mitigar el estrés hídrico. In: Sistemas de Producción de Trigo y Cebada: Herramientas ecofisiológicas para optimizar el rendimiento, la calidad y el uso de los recursos. Editores: S. Valle, C. Lixzana & D.F. Calderini. ISBN 978-956-351-741-5

Rondanini, D.P., Borrás, L. & **Savin, R**. (2013). Grain quality in oil and cereal crops. Sustainable Food Production: Selected entries from the Encyclopedia of Sustainability Science and Technology. Editors P. Christou, **R. Savin,** B.A. Costa-Pierce, I. Miztal & B.A. Whitelaw,Editorial Springer ISBN 978-1-4614-5796-1. pp. 972-985. (*Publicado originalmente en Encylopedia of Sustainability Science and Technology, Editor R. Meyer, Editorial Springer*)

Savin, R., Slafer, G:A., Cossani, M.C., Abeledo, L.G., Sadras, V.O. (2015). Cereal yield in Mediterranean-type environments: challenging the paradigms on terminal drought, the adaptability of barley vs wheat and the role of nitrogen fertilization. In: Victor O. Sadras and Daniel Calderini, editors: Crop Physiology, applications for genetic improvement and agronomy, Oxford: Academic Press, p. 141-158. ISBN:978-0-12-417104-6

Slafer; G.A., Kantolic, A.C., Appendino, M.L., Miralles, D.J., Tranquilli, G., **Savin, R.** (2015).Genetic and environmental effects on crop development determining adaptation and yield**.** In: Victor O. Sadras and Daniel Calderini, editors: Crop Physiology, applications for genetic improvement and agronomy, Oxford: Academic Press, p. 285-319. ISBN:978-0-12-417104-6**.**

Llibres editats

Sustainable Food Production: Selected entries from the Encyclopedia of Sustainability Science and Technology, 2013. Editors P. Christou, **R. Savin,** B.A. Costa-Pierce, I. Miztal & B.A. Whitelaw,Editorial Springer ISBN 978-1-4614-5796-1. 3 Volumes.

Crop Science and Technology. In Encyclopedia of Sustainability Science and Technology, 2011. Section Editors Paul Christou, R. Savin. Editorial Springer (in press).

Producción de Cultivos de Granos. Bases funcionales para su manejo, 2003. Editors: E.H. Satorre, R.L. Benech Arnold, G.A. Slafer, E. De la Fuente, D.J. Miralles, M.E. Otegui, R. Savin, Editorial Facultad de Agronomía, Buenos Aires, Argentina, 783 p. ISBN 950-29-0713-2.

Barley Science. Recent advances from molecular biology to agronomy of yield and quality, 2002. Editors: G.A. Slafer, J.L. Molina-Cano, R. Savin, J.L. Araus & I. Romagosa, Food Product Press, New York, USA, 565 p.

Per mes informació (Consultes GREC [http://webgrec.udl.cat/cgi-bin/DADREC/crgen.cgi?FONT=3&IDI=CAT&PID=367567&IDNC=201210161350170])