

M. Luciana Rosso, Ph.D.

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EDUCATION:

2002-2007	Ph.D. Plant Science Major: Plant Pathology	University of Arkansas Fayetteville, AR
1990-1999	Licenciada en Ciencias Biológicas Major: Biology	University of Buenos Aires Buenos Aires, Argentina

PROFESSIONAL EXPERIENCE

Research Experience

01/11-Present	Faculty Research Associate Director: Dr. Carl A. Griffey	Small Grain Breeding and Genetics Virginia Tech University
11/07-Present	Faculty Research Associate Supervisors: Dr. Bo Zhang/Dr. Glenn Buss Former Director: Dr. Katy Martin Rainey	Soybean Breeding and Genetics Virginia Tech University
06/07-08/07	Research Associate Director: Dr. John Rupe	Plant Pathology Department University of Arkansas
	Project-Subject: "Molecular Characterization of soybean rust spores recovered from slides from spore traps". Project funded by SYNGENTA.	
01/02-05/07	Ph.D. Graduate Student Director: Dr. John Rupe	Plant Pathology Department University of Arkansas
	Dissertation: "Genetic Resistance in Soybean to <i>Pythium</i> Damping-off and Molecular Characterization of <i>Pythium</i> Population Dynamics in Arkansas"	
10/01-01/02	Visiting Researcher Director: Dr. James Correll	Plant Pathology Department University Of Arkansas
	Project-Subject: "Isolation of Lichenic Mycobionts and characterization of metabolites produced in culture"	

01/01-12/01 **Researcher** Biology Depart. and Organic Chemistry Depart.
Director: Dr. Marta S. Maier University of Buenos Aires, Argentina
Co-Director: Dr. M. Delia Bertoni

Project: “Natural bioactive lipids and synthetic lipids: structural elucidation, conformational analysis and the evaluation of the antiviral and anti-tuberculosis activity” Grant: UBACyT: X032

09/99-12/00 **Researcher** Biology Depart. and Organic Chemistry Depart.
Director: Dr. M. Delia Bertoni University of Buenos Aires, Argentina
Co-Director: Dr. Marta S. Maier

Projects: “The study of the symbiosis between fungi and autotrophic organisms”
Grants: UBACyT : TX-59 and CONICET: PIP 4492/96

03/90-08/99 **Undergraduate Student -** Biology Depart. and Organic Chemistry Depart.
With Research Thesis University of Buenos Aires, Argentina
Advisor: Dr. M. Delia Bertoni,
Co-Advisor: Dr Marta S. Maier

Thesis: “Trichothecene production by the fungal Epibiont of *Baccharis coridifolia*”.

REFEREED PUBLICATIONS

BOOK CHAPTER

Rupe, J.C., Rothrock, C.S., Bates, G., **Rosso, M. L.**, Avanzato, M. V. and Chen, P. (2011). Resistance to Pythium Seedling Disease in Soybean. *In*: Soybean - Molecular Aspects of Breeding, Aleksandra Sudaric (Ed.), ISBN: 978-953-307-240-1, Publisher: InTech, 514 pages. Available from: <http://www.intechopen.com/articles/show/title/resistance-to-pythium-seedling-disease-in-soybean>

REFERRED JOURNAL ARTICLES

1. Luciano M. Jaureguy, M. Luciana Rosso, Pengyin Chen & Katy M. Rainey. Selection efficiency of high inorganic phosphorus-low stachyose lines from soybean breeding populations of different genetic backgrounds. *J of Crop Improvement*. Published online 28 Nov 2016.
2. Berger, G., Green, A., Khatibi, P., Brooks, W., **Rosso, L.**, Liu, S., Griffey, C., and Schmale, D. **2013**. characterization of fusarium head blight (fhb) resistance and

deoxynivalenol accumulation in hulled and hullless winter barley. Plant Disease (accepted for publication on 10.13.2013. Posted online on 8 Nov 2013, First Look)

3. Sarah Burleson, Shang, Chao, **M.L. Rosso**, Laura Maupin, Katy Rainey. **2012**. A High-Throughput Colorimetric Method for Selection of Soybean Phytate Concentration. Crop Sci. 52: 1: 122-127. **This paper was selected for inclusion in the Research Highlight program from ASA-CSSA-SSSA**
4. **M. L. Rosso**, A. Vazquez, and K. M. Rainey. **2011**. First Report of Soybean Frogeye Leaf Spot Caused by *Cercospora sojina* Race 11 in Virginia. Plant Disease 95 (7).
5. **M.L. Rosso**, Sarah A. Burleson, Laura M. Maupin, and Katy Martin Rainey. **2011**. Development of breeder-friendly markers for selection of *MIPS1* mutations in soybean. Molecular Breeding 28:127-132.
6. Laura M. Maupin, **M.L. Rosso**, Chao Shang, and Katy M. Rainey. **2011**. Genotype × Environment Interaction and Stability of Phosphorus Concentration across Twelve Environments in Two Soybean Germplasm Sources with Modified Phosphorus Composition. Crop Sc. 51: 4: 1518-1524.
7. L.M. Maupin, **M.L. Rosso**, C. Shang, and K.M. Rainey. 2011. Improving emergence of low phytate soybeans: genotypes, germplasm, environments, and selection. Crop Sci.51:1946-1955.
8. L.M. Maupin, **M.L. Rosso**, and Katy M. Rainey. 2011. Environmental Effects on Soybean with Modified Phosphorus and Sugar Composition. Crop Sci 51:642-650
9. This paper was selected for inclusion in the Research Highlight program from ASA-CSSA-SSSA
10. Marta S. Maier, **Maria L. Rosso**, Alejandra T. Fazio, Monica T. Adler, and Maria D. Bertoni. 2009. Fernene Triterpenoids from the Lichen *Pyxine berteriana*. J. Nat. Prod. 72, 1902–1904.
11. Alejandra T. Fazio, María D. Bertoni, Mónica T. Adler, Laura B. Ruiz, **María L. Rosso**, Lucia Muggia, Armin Hager, Elfie Stocker-Wörgötter, and Marta S. Maier. 2009. Culture studies on the mycobiont isolated from *Parmotrema reticulatum* (Taylor) Choisy: metabolite production under different conditions. Mycol Progress 8:359–365.
12. **M.L. Rosso**, John C. Rupe, Pengyin Chen, and Leandro A. Mozzoni. 2008. Inheritance and Genetic Mapping of Resistance to *Pythium* Damping-Off Caused by *Pythium aphanidermatum* in ‘Archer’ Soybean. Crop Sci 48: 2223-2234.
13. M. T. Adler, A., Fazio, M. D. Bertoni , **M.L. Rosso**, M. S. Maier and Arne Thell. 2004. “Culture experiments and DNA verification of a mycobiont isolated from *Puctelia subpraesignis* (Parmeliaceae)”. Contributions to Lichenology. Bibliotheca Lichenologica. 88: 1-8.
14. **M.L. Rosso**, M.D. Bertoni, M.T., Adler, and M.S., Maier. 2003. “Antraquinones from the cultures lichen mycobionts of *Teloschistes exilis* and *Caloplaca erythrantha*”. Biochem. Syst. Eco. 31 (10), 1197-1200.

15. C. C. García, **M. L. Rosso**, M. D. Bertoni, M. S. Maier and E. B. Damonte. 2002. "Evaluation of the antiviral activity against Junin virus of macrocyclic trichothecenes produced by the hypocrealean epibiont of *Baccharis coridifolia*". *Planta Médica* 68, 209-212.
16. **M.L. Rosso**, M.S. Maier and M.D. Bertoni. 2000. "Macrocyclic Trichothecene Production by the Fungus Epibiont of *Baccharis coridifolia*" , *Molecules* 5, 348-349.
17. **M.L. Rosso**, M. S. Maier and M. D. Bertoni. 2000. "Trichothecenes Production by the Hypocrealean Epibiont of *Baccharis coridifolia*" *Plant Biology*.2 (6), 684.

ABSTRACTS AND PRESENTATIONS

1. Rupe, J.C., Rothrock, C. S., **Rosso, M. L.**, and Gbur Jr., E.E.. Effect of planting date, seed treatment, seed quality, flooding and *Pythium* resistance to soybean emergence. Southern APS Meeting, February 17-20 **2017**. College Station, Texas
2. Diana M. Escamilla, Bo Zhang, and **Luciana Rosso**. Enhancing Soybean Sprout Food Safety Through Seed Disinfection Treatments. ASA-CSSA-SSSA Annual Meeting. **2016**, Phoenix, AZ, Nov. 6-9.
3. Diana Escamilla, Bo Zhang, and **Luciana Rosso**. Breeding Criteria of Sprout Characters of Soybean Seeds. ASA-CSSA-SSSA Annual Meeting. **2015**. Long Beach, CA.
4. B. Zhang, K. Rainey, G. Buss, **L. Rosso**, T. Pridgen, L. Barrack, R. Markham, R. Pitman, M. Beahm, M. Saghai-marroof, A. Jensen, and B. Averitt. Low Phytate Soybeans, for the Health of the Chesapeake Bay. 2013 Virginia Field day, Warsaw, Sept 2013.
5. Laura Maupin, Katy Rainey and **Luciana Rosso**. Evaluation of Field Emergence and Extended Cold Germination Testing of Advanced Soybean Lines From Two Sources of Low Phytate Germplasm Grown in 12 Environments. ASA-CSSA-SSSA Annual Meeting. October 31st to Nov. 4th, **2010**. Long Beach, CA.
6. Sarah Burleson, Katy Rainey, Laura Maupin and **Luciana Rosso**. Improving Germination and Emergence in Low Phytate Soybeans. ASA-CSSA-SSSA Annual Meeting. October 31st to Nov. 4th, **2010**. Long Beach, CA.
7. Katy Rainey, Laura Maupin and **Luciana Rosso**. Breeding Low Phytate Soybeans: Recommendations for Success. ASA-CSSA-SSSA Annual Meeting. October 31st to Nov. 4th, **2010**. Long Beach, CA.
8. **Rosso, L.**, Burleson, S., Maupin, L., Rainey, K.M. Development of Breeder Friendly Markers for Selection of a Novel Source of the Low Phytate trait. 13th Biennial Molecular and Cellular Biology of the Soybean Conference. Aug 8th to 11th, **2010**. Durham, NC.

9. Maupin, L., **Rosso, L.**, and Rainey K. M. Characterization of Novel Low Phytate and Low Stachyose Germplasm for Soybean Breeding. ASA-CSSA-SSSA Annual Meeting. November 1st to 5th, **2009**. Pittsburgh, PA. AnMtgsAbsts2009.53527.
10. **M.L. Rosso**, J.C. Rupe, L.A. Mozzoni, C.S. Rothrock, P. Chen. Inheritance and genetic mapping of resistance to *Pythium* damping-off caused by *Pythium aphanidermatum* in soybean cultivar Archer. APS Annual Meeting **2007**. July 28th to Aug 1st, 2006. San Diego, California, USA. Phytopathology 97:S101.
11. **M.L. Rosso**, J.C. Rupe, C.S. Rothrock, P. Chen. Inheritance and Genetic Mapping of Resistance to *Pythium* Damping-off caused by *Pythium aphanidermatum* in soybean cultivar Archer. 34th Annual Meeting of the Southern Soybean Disease Workers. February 18-19, **2007** St. Louis, MO, USA.
12. **M. L. Rosso**, J. C. Rupe, F. N. Martin, C. C. Rothrock. Molecular identification of *Pythium* spp. isolated from soybean fields in Arkansas. APS Annual Meeting 2006. July 29th to Aug 2nd, **2006**. Quebec City, Canada. Phytopathology 96:S100.
13. **M. L Rosso**, J.C. Rupe, C.S. Rothrock. Resistance of soybean cultivars to *Pythium* damping-off and root rot based on *Rps* 1k gene. APS Annual Meeting 2005, July 30th to Aug 3rd, **2005**. Austin, Texas, USA. Phytopathology 95:S90.
14. **M.L. Rosso**, J.C. Rupe, C.S. Rothrock, M.T. Kirkpatrick, R. Cartwright, C. Tingle, M. Poop, and S.A. Winters. Effect of Fungicide Seed Treatment and Seed Quality on Soybean Stand and Yield in Arkansas. APS Southern Division Meeting 2005. February 6th to 8th, **2005**, Little Rock, Arkansas, USA.
15. S. L. Giammaria, **M. L. Rosso**, J. C. Correll, and J. C. Rupe. Pathogenicity, mitochondrial DNA RFLPs, and colony morphology comparisons of isolates of *Fusarium virguliforme* and *F. tucumaniae* capable of causing SDS of soybean. APS Annual Meeting, 2004. July 31st to Aug 4th, 2004. Anaheim, California, USA. Phytopathology 94:S34.
16. C.S. Rothrock, J.C. Rupe, M.T. Kirkpatrick, G.D. Bates, **M.L. Rosso**, C.B. Borger, S.A. Winters. Use of resistance and fungicides in the control of seedling diseases of soybean over diverse environments in Arkansas. VII World Soybean Research Conference. February 29 to March 5, **2004**. Foz do Iguassu, PR, Brazil.
17. **M.L. Rosso**, C. Boger, G. Bates, C. Rothrock, T. Kirkpatrick, and J. Rupe. Effect of fungicide seed treatment on soybean establishment. APS Southern and Caribbean Divisions Meeting. April 6 to 11, **2003**. South Padre Island, Texas, USA.
18. **M.L. Rosso**, C. Boger, G. Bates, C. Rothrock, T. Kirkpatrick, and J. Rupe. Effect of fungicide seed treatment on soybean establishment. Southern Soybean Disease Workers Meeting 2003. March 2nd to 3rd, **2003**, Little Rock, Arkansas, USA.

19. Maier, M.S., **Rosso, M.L.**, Bertoni, M.D. y Adler, M.T. “Triterpenoides novedosos del liquen *Pyxine berteriana*”, XIV Simposio Nacional de Química Orgánica, Rosario, Santa Fe, 9th to 12th November, **2003**.
20. M.T. Adler, A. Fazio, M.D. Bertoni, **M.L. Rosso**, Maier, M.S. and A. Thell. “Estudio del cultivo y verificación por técnicas de DNA de un micobionte aislado de *Punctelia subpraesignis* (Parmeliaceae: Ascomycota liquenizado)” . XXIX Jornadas Argentinas de Botánica y XV Reunion Anual de la sociedad Botánica de Chile, San Luis, 19th to 23rd October, **2003**.
21. **Rosso, M. L.**, Bertoni, M. D., Adler, M. T. y Maier, M. S. “ Producción de Parietina por el micobionte liquenico de *Teloschistes exilis*”, XIII National Symposium of Organic Chemistry, organized by Sociedad Argentina de Investigación en Química Orgánica – SAIQO. 11th to 14th November, **2001**. Córdoba, Argentina.
22. **Rosso, M.L.**, García, C.C., Bertoni, M.D., Damonte, E.B., and Maier, M.S. “Macrocyclic Trichothecene Production by the Fungus Epibiont of *Baccharis coridifolia* and the evaluation of the antiviral activity against Junin virus”, III Latin American Mycotoxicology Congress, organized by Sociedad Latinoamericana de Micotoxicología and de National University of Río Cuarto, Argentina. 6th to 10th November, **2000**. Los Cocos, Córdoba, Argentina.
23. **M.L. Rosso**, M.S. Maier and M.D. Bertoni. “Macrocyclic Trichothecene Production by the Fungus Epibiont of *Baccharis coridifolia*”, XII National Symposium of Organic Chemistry, organized by Sociedad Argentina de Investigación en Química Orgánica – SAIQO. 14th to 17th November, **1999**. Los Cocos, Córdoba, Argentina.

TEACHING EXPERIENCE

Invited Co-Instructor

North Carolina State University
21-26 May, 2006

“Second International Workshop for the Morphological and Molecular Identification of the Straminipiles: *Phytophthora* and *Pythium*”. Organized by Plant Pathogen Identification Laboratory (PIPL), Department of Plant Pathology.

Invited Co-Instructor

North Carolina State University
27 May, 2006

"Strengthening the Basis for a Survey of the Straminipiles: *Phytophthora* and *Pythium* in the Americas and Beyond." Organized by Plant Pathogen Identification Laboratory (PIPL), Department of Plant Pathology.

Teaching Assistant University of Arkansas
Plant Pathogenic Fungi (graduate course) Fall 2005

Teaching Assistant University of Buenos Aires
Botany (undergraduate course) 1998-2001

Teaching Assistant University of Buenos Aires
Phytopathology and Phycology (undergrad & grad course) 1998-2000

AWARDS AND HONORS

Gamma Sigma Delta Annual Competition University of Arkansas
2nd Place - Oral Presentation 2007

“Inheritance and Genetic Mapping of Resistance to *Pythium* Damping-off caused by *Pythium aphanidermatum* in soybean cultivar Archer”

Gamma Sigma Delta Annual Competition University of Arkansas
2nd Place - Poster Presentation 2007

“Molecular identification of *Pythium* spp. isolated from soybean fields in Arkansas”

2005 Outstanding PhD Scholar University of Arkansas
Plant Pathology Department, Dale Bumper College 2005

Internal Post-Graduate Fellowship CONICET
2001-2003

Aim of the studies: “Isolation of Lichenic Mycobionts and characterization of metabolites produced in culture”- Council of Scientific and Technological Research (Consejo de Investigaciones Científicas y Técnicas - CONICET- Argentina)

ACADEMIC SERVICE

Special Research Faculty Representative Virginia Tech University
CSES Department 01/2013 - Present

Judge Virginia Tech University
Research Symposium of the Virginia Junior Academy of Science May 22, 2013

Volunteer Fayetteville, AR
Plant Pathology Graduate Student Diagnostic Service - Farmers Market 2005 - 2007

Treasurer
Plant Pathology Graduate Student Association

University of Arkansas
2003-2004

LANGUAGES

Spanish Native language
English Fluent

REFERENCES

Dr. Vergel Concibido
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Dr. Katy Rainey
Assistant Professor of Agronomy
Agronomy Department
Purdue University
West Lafayette, IN
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Dr. John C. Rupe
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