

Emerson Medeiros Del Ponte

Associate Professor
Plant Pathology

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Education

2000 - 2004	D.Sc. in Plant Pathology, Universidade Federal de Pelotas (UFPel), Pelotas, Brazil Sandwich period (one year, 2003) in Cornell University
1997 - 1999	M.Sc. in Agronomy, UFPel, Pelotas, Brazil
1991 - 1996	B.Sc. in Agronomy, UFPel, Pelotas, Brazil

Employment

2014 – present	Associate Professor, Departamento de Fitopatologia, UFV, Brazil
2006 – 2013	Assistant Professor, Departamento de Fitossanidade, UFRGS, Brazil
2005 – 2006	Post-doctoral associate, Department of Plant Pathology, Iowa State University, Iowa, US

Teaching

FIP 300	Introductory Plant Pathology, 60h (Sem. II, Undergraduate, UFV)
FIP 395	Introduction to Scientific Research, 30h (Sem. I, Undergraduate, UFV)
FIP 606	Data analysis and Visualization in Plant Pathology, 60h (Sem I, Grad Plant Path, UFV)
FIP 602	Plant Disease Epidemiology, 60h (Sem. II, Grad Program Plant Pathology, UFV)
ENT841	Experimental research and data analysis, 60h (Professional Masters UFV)

Professional activities

2018 - present	Co-founder of Open Plant Pathology. http://www.openplantpathology.org
2017 - present	Chair of Graduate Program in Plant Pathology, UFV
2017 - present	Editor in Chief, Tropical Plant Pathology, Brazilian Phytopathol. Society

2016 - present	Senior Editor, Plant Disease, American Phytopathol. Society
2013 – 2017	Senior Editor, Tropical Plant Pathology, Brazilian Phytopathol. Society
2013 – 2016	Section Editor, Scientia Agricola, Escola Agricultura Luiz de Queiróz
2009 – 2015	Section Editor, Acta Scientiarum.Agronomy, Univ. Estadual de Maringá

Meeting and workshop organization

2016	5 th International Symposium on Fusarium head blight and 2 nd International Workshop on wheat blast. Florianópolis, Brazil Role: Scientific committee Chair
2017	2017 Tropical Fusarium Workshop. Viçosa, Minas Gerais Brazil Role: Organizer and scientific committee chair
2023	13 International Epidemiology Workshop Role: Organizer and Chair

Selected talks at scientific meetings

2018	<i>Fusarium graminearum</i> species complex: Global database and mapping species and chemotypes Event: 2nd Mycokey International Conference, Wuhan, China Can rainfall be a useful predictor of epidemic risk across temporal and spatial scales? Event: Concurrent session, International Congress of Plant Pathology, Boston, MA, USA Open ideas, data and code sharing: epidemiologists should be in front! Event: 12 International Epidemiology Workshop, Lillehammer, Norway To diagram or not to diagram: Is there a future for diagrammatic visual severity assessments aids? Event: 12 International Epidemiology Workshop, Lillehammer, Norway
2017	Unravelling FHB Epidemics in the Brazilian Subtropics: Lessons Learned and management strategies Event: 2017 National Fusarium Head Blight Forum, Milwaukee, WI, USA Meta-approaches for analyzing large-scale data networks to improve plant disease management (PDM) Event: Invited Seminar, Department of Plant Pathology, Cornell University, Ithaca NY, USA
2016	Desafios e tendências no uso de modelos na avaliação e previsão de risco

de doenças de plantas (*Challenges and trends on the use of risk assessment and prediction models of plant diseases*).

Event: 49 Congresso Brasileiro de Fitopatologia, Epidemiology Session

Maceió, AL, Brazil

2015

Multi-cereal surveys suggest host preference among members of the *Fusarium graminearum* species complex from southern Brazil.

Event: 13th European Fusarium Seminar.

Martina Franca, Italy

2014

Estudos com modelos de previsibilidade para ocorrência de micotoxinas no Brasil (*Studies on prediction models for the occurrence of mycotoxins in Brazil*)

Event: XV Encontro Nacional de Micotoxinas, Pirassununga, SP, Brazil

2013

Meta-analysis in Plant Pathology: introductory concepts and case studies on soybean rust

Event: 46 Congresso Brasileiro de Fitopatologia, Ouro Preto, MG, Brazil

2011

Advances in modeling and prediction of Fusarium head blight of wheat

Event: MycoRed Argentina, International Society of Mycotoxicology Conference, Mendoza, Argentina

Finished mentoring and supervision

Post-doctoral

Paul David Esker. 2007. Universidade Federal do Rio Grande do Sul
Juliano dos Santos. 2010. Universidade Federal do Rio Grande do Sul
Lucas de Magalhães Abreu. 2015. Universidade Federal de Viçosa
Gláucia Mara Moreira. 2016. Universidade Federal de Viçosa

Doctor of Science

Paulo Roberto Kuhn Junior. Ecologia, patogenicidade e potencial toxigênico do complexo de espécies *Fusarium graminearum* em milho e trigo. 2014. Dissertation (Fitotecnia) - Universidade Federal do Rio Grande do Sul

Piérri Spolti. Intensidade da giberela em trigo, diversidade, ecologia e potencial toxigênico de populações do complexo de espécies *Fusarium graminearum*. 2013. Dissertation (Fitotecnia) - Universidade Federal do Rio Grande do Sul

Master of Science

Jhonatan Barro. Comparative performance and profitability of fungicides for managing soybean white mold: a network meta-analysis. 2018. M. Sc. thesis in Plant Pathology (English)

Carolina Fernanda de Ávila. Species and trichothecene genotypes within *Fusarium incarnatum-equiseti* species complex infecting Brazilian rice. 2017. M. Sc. thesis in Plant Pathology (English)

Franklin Jackson Machado. Giberela do trigo: resistência a fungicidas e metanálise da eficácia do controle químico. 2016. M.Sc. thesis in Plant Pathology

(Portuguese)

Leilane Silveira D'ávila. Diversidade de patótipos e estrutura de populações de *Magnaporthe oryzae* no sul do Brasil. 2014. M. Sc. thesis in Plant Pathology. Universidade Federal do Rio Grande do Sul (Portuguese)

Larissa Bitencourt Gomes. Diversidade, potencial toxigênico and patogenicidade de espécies de isoladas de arroz. 2014. M. Sc. thesis in Plant Pathology. Universidade Federal do Rio Grande do Sul (Portuguese)

Camila Primieri Nicolli. Reprodução, patogenicidade, e potencial toxigênico *Fusarium graminearum*, *F. meridionale* e *F. cortaderiae*. 2014. M. Sc. thesis in Plant Pathology. Universidade Federal do Rio Grande do Sul (Portuguese)

Felipe Dalla Lana da Silva. Modelagem da relação entre a severidade da ferrugem-asiática e a produtividade da soja por meta-análise. 2013. M. Sc. thesis in Plant Pathology. Universidade Federal do Rio Grande do Sul (Portuguese).

André Aguiar Schwanck. Aspectos epidemiológicos da mancha parda do arroz irrigado no Estado do Rio Grande do Sul. 2012. M. Sc. thesis in Plant Pathology. Universidade Federal do Rio Grande do Sul (Portuguese).

Raquel Stumpf. Prevalência, perfil toxigênico e agressividade de espécies de *Fusarium* associados aos grãos de milho do Estado do Rio Grande do Sul. 2011. M. Sc. thesis in Plant Pathology. Universidade Federal do Rio Grande do Sul (Portuguese)

Paula Astolfi. Aspectos epidemiológicos e moleculares de *Fusarium graminearum* associado ao trigo e cevada no sul do Brasil. 2010. M. Sc. thesis in Plant Pathology. Universidade Federal do Rio Grande do Sul (Portuguese)

Piérri Spolti. Epidemiologia e controle de doenças do complexo fuligem e sujeira de mosca em macieira. 2009. M. Sc. thesis in Plant Pathology. Universidade Federal do Rio Grande do Sul (Portuguese)

Publications

Names underlined: members of the Del Ponte laboratory. Asterisk: corresponding author.

2019

Del Ponte EM, Nelson SC, Pethybridge SJ* (2019). Evaluation of app-embedded disease scales for aiding visual severity estimation of *Cercospora* Leaf Spot of table beet. Plant disease. *Plant Disease* 103:1347-1356.

Scaglioni PT, Pagnussatt FA, Lemos AC, Nicolli CP, Del Ponte EM, Badiale-Furlong E* (2019) *Nannochloropsis* sp. and *Spirulina* sp. as a source of antifungal compounds to mitigate contamination by *Fusarium graminearum* Species Complex. Current microbiology, *In Press*. <https://doi.org/10.1007/s00284-019-01663-2>.

Barro JP, Meyer MC, Godoy CV, Dias AR, Utiamada C, Jaccoud-Filho DS, Wruck DM, Borges EP, Siqueri FV, Juliatti FC, Campos HD, Nunes Jr J, Carneiro LC, Carregal LH, Silva MC, Balardin RS, Zito RZ, Furlan SH, Venancio WS, Del Ponte EM* (2019) Performance and profitability of fungicides for managing soybean white mold: a 10-year summary of cooperative trials. *Plant*

2018

Pereira CB, Ward TJ, Tessmann DJ, Del Ponte EM, Laraba I, Vaughan MM, McCormick SP, Busman M, Kelly A, Proctor RH, O'Donnell K* (2018) *Fusarium subtropicale*, sp. nov., a novel nivalenol mycotoxin-producing species isolated from barley (*Hordeum vulgare*) in Brazil and sister to *F. praegraminearum*, *Mycologia*, 110:5, 860-871

Lofgren L, Riddle J, Dong Y, Kuhnem PR, Cummings JA, Del Ponte EM, Bergstrom GC, Kistler HC* (2018) A high proportion of NX-2 genotype strains are found among *Fusarium graminearum* isolates from northeastern New York State. *European Journal of Plant Pathology* 150:791-796
DOI: <https://doi.org/10.1007/s10658-017-1314-6>

Dalla Lana F, Paul PA, Godoy CV, Utiamada CM, da Silva LH, Siqueri FV, Forcelini CA, Jaccoud-Filho DS, Miguel-Wruck DS, Borges EP, Juliatti FC, Campos HD, Nunes J, Carneiro LC, Canteri MG, Ito MF, Meyer MC, Martins MC, Balardin RS, Furlan SH, Carlin VJ, Del Ponte EM* (2018) Meta-analytic modeling of the decline in performance of fungicides for managing soybean rust after a decade of use in Brazil. *Plant Disease* 102:807-817
DOI: <https://doi.org/10.1094/PDIS-03-17-0408-RE>

Pazdiora PC, da Rosa Dorneles K, Forcelini CA, Del Ponte EM, Dallagnol LJ* (2018) Silicon suppresses tan spot development on wheat infected by *Pyrenophora tritici-repentis*. *European Journal of Plant Pathology* 150:49-56
DOI: <https://doi.org/10.1007/s10658-017-1251-4>

Mendes GRL, Del Ponte EM*, Feltrin AC, Badiale-Furlong E, Oliveira AC*. (2018) Common resistance to *Fusarium* head blight in Brazilian wheat cultivars. *Scientia Agricola* 75:426-431
DOI: <https://doi.org/10.1590/1678-992x-2016-0407>

Nicolli CP, Machado FJ, Spolti P, Del Ponte EM* (2018). Fitness traits of deoxynivalenol and nivalenol-producing species complex strains from wheat. *Plant Disease* 102:1341-1347
DOI: <https://doi.org/10.1094/PDIS-12-17-1943-RE>

2017

Lehner MS, Pethybridge SJ, Meyer MC, Del Ponte EM* (2017) Meta-analytic modelling of the incidence-yield and incidence-sclerotial production relationships in soybean white mould epidemics. *Plant Pathology* 66:460-468
DOI: <https://doi.org/10.1111/ppa.12590>

Del Ponte EM*, Pethybridge SJ, Bock CH, Michereff SJ, Machado FJ, Spolti P (2017) Standard area diagrams for aiding severity estimation: scientometrics, pathosystems, and methodological trends in the last 25 Years. *Phytopathology* 107:1161-1174
DOI: <https://doi.org/10.1094/PHYTO-02-17-0069-FI>

Machado FJ, Santana FM, Lau D, Del Ponte EM* (2017) Quantitative review of the effects of triazole and benzimidazole fungicides on *Fusarium* head blight and wheat yield in Brazil. *Plant Disease* 101:1633-1641.
DOI: <https://doi.org/10.1094/PDIS-03-17-0340-RE>

Savary S*, Djurle A, Yuen J, Ficke A, Rossi V, Esker PD, Fernandes JM, Del Ponte EM, Kumar J, Madden LV, Paul P, McRoberts N, Singh PK, Huber L, Pope de Vallavielle C, Saint-Jean S, Willocquet L (2017) A white paper on global wheat health based on scenario development and analysis. *Phytopathology* 10:1109-1122
DOI: <https://doi.org/10.1094/PHYTO-01-17-0027-FI>

Lehner MS, Del Ponte EM, Gugino BK, Kikkert JR, Pethybridge SJ* (2017) Sensitivity and efficacy of boscalid, fluazinam, and thiophanate-methyl for white mold control in snap bean in New York.

Plant Disease 101:1253-1258
DOI: <https://doi.org/10.1094/PDIS-12-16-1731-RE>

Lehner MS, de Paula Júnior TJ, Del Ponte EM, Mizubuti ES, Pethybridge SJ* (2017) Independently founded populations of *Sclerotinia sclerotiorum* from a tropical and a temperate region have similar genetic structure. *PloS one* 12(3):e0173915
DOI: <https://doi.org/10.1371/journal.pone.0173915>

2016

D'Ávila LS, Lehner MS, Filippi MC, Scheuermann KK, Del Ponte EM* (2016) Genetic structure and mating type analysis of the *Pyricularia oryzae* population causing widespread epidemics in southern Brazil. *Tropical Plant Pathology* 41:297-305
DOI: <https://doi.org/10.1007/s40858-016-0101-9>

Vaughan M, Backhouse D, Del Ponte EM* (2016) Climate change impacts on the ecology of *Fusarium graminearum* species complex and susceptibility of wheat to Fusarium head blight: a review. *World Mycotoxin Journal* 9:685-700
DOI: <https://doi.org/10.3920/WMJ2016.2053>

Schwanck AA, Del Ponte EM* (2016) Measuring lesion attributes and analyzing their spatial patterns at the leaf scale using digital image analysis. *Plant Pathology* 65:1498-1508
DOI: [10.1111/ppa.12526](https://doi.org/10.1111/ppa.12526)

Castanares E, Dinolfo MI, Del Ponte EM, Pan D, Steinglenin SA* (2016) Species composition and genetic structure of *Fusarium graminearum* species complex populations affecting the main barley growing regions of South America. *Plant Pathology* 65:930-939
DOI: <https://doi.org/10.1111/ppa.12470>

Kuhnem PR, Ward TJ, Silva CN, Spolti P, Ciliato ML, Tessmann DJ, Del Ponte EM* (2016) Composition and toxigenic potential of the *Fusarium graminearum* species complex from maize ears, stalks and stubble in Brazil. *Plant Pathology* 65:1185-1191
DOI: <https://doi.org/10.1111/ppa.12497>

Bock CH*, Chiang KS, Del Ponte EM (2016) Accuracy of plant specimen disease severity estimates: Concepts, history, methods, ramifications and challenges for the future. *CAB Reviews: Perspectives in Agriculture, Veterinary Science, Nutrition and Natural Resources* 11(032):21

2015

Del Ponte EM*, Spolti P, Ward T, Gomes LB, Nicolli CP, Kuhnem PR, da Silva CN, Tessmann DJ (2015) Regional and field-specific factors affect the composition of Fusarium head blight pathogens in subtropical no-till wheat agroecosystem of Brazil. *Phytopathology* 105:246-54
DOI: <https://doi.org/10.1094/PHYTO-04-14-0102-R>

Dalla Lana F, Ziegelmann PK, Maia AHN, Godoy CV, Del Ponte EM* (2015) Meta-analysis of the relationship between crop yield and soybean rust severity. *Phytopathology* 105:307-315
DOI: <https://doi.org/10.1094/PHYTO-06-14-0157-R>

Kuhnem PR, Spolti P, Del Ponte EM, Cummings JA, Bergstrom GC* (2015) Trichothecene genotype composition of *Fusarium graminearum* not differentiated among isolates from maize stubble, maize ears, wheat spikes, and the atmosphere in New York. *Phytopathology* 105:695-699
DOI: <https://doi.org/10.1094/PHYTO-10-14-0266-R>

Schwanck AA, Meneses PR, Faria CRJ, Funck GRD, Maia AHN, Del Ponte EM* (2015) *Bipolaris oryzae* seed borne inoculum and brown spot epidemics in the subtropical lowland rice-growing region of Brazil. *European Journal of Plant Pathology* 142:875-885
DOI: <https://doi.org/10.1007/s10658-015-0659-y>

Nicolli CP, Spolti P, Tibola CS, Fernandes JMC, Del Ponte EM* (2015) Fusarium head blight and trichothecene production in wheat by *Fusarium graminearum* and *F. meridionale* applied alone or in mixture at post-flowering. *Tropical Plant Pathology* 40:134-140
DOI: <https://doi.org/10.1007/s40858-015-0017-9>

Gomes LB, Ward TJ, Badiale-Furlong E, Del Ponte EM* (2015) Species composition, toxigenic potential and pathogenicity of *Fusarium graminearum* species complex isolates from southern Brazilian rice. *Plant Pathology* 64: 980-987
DOI: <https://doi.org/10.1111/ppa.12332>

2014

Spolti P, Del Ponte EM, Dong Y, Cumming JA, Bergstrom GC* (2014) Assessment of triazole sensitivity in a contemporary population of *Fusarium graminearum* from New York wheat and competitiveness of a tebuconazole-resistant isolate. *Plant Disease* 98:607-613
DOI: <https://doi.org/10.1094/PDIS-10-13-1051-RE>

Spolti P, Del Ponte EM, Cumming J, Dong Y, Bergstrom GC* (2014) Fitness attributes of *Fusarium graminearum* isolates from wheat in New York possessing a 3-ADON or 15-ADON trichothecene genotype. *Phytopathology* 104:513-519
DOI: <https://doi.org/10.1094/PHTO-07-13-0206-R>

Kuhnem PR, Del Ponte EM, Dong Y, Bergstrom GC* (2014) *Fusarium graminearum* isolates from wheat and maize in New York show similar range of aggressiveness and toxigenicity in cross-species pathogenicity tests. *Phytopathology* 105:441-448
DOI: <https://doi.org/10.1094/PHTO-07-14-0208-R>

2013

Pagnussat FA, Kupski L, Darley FT, Filoda PF, Del Ponte EM, Garda-Bufferon J, Badiale-Furlong E* (2013) *Fusarium graminearum* growth inhibition mechanism using phenolic compounds from *Spirulina* sp. *Food Science and Technology* 33:75-80
DOI: <http://dx.doi.org/10.1590/S0101-20612013000500012>

2012

Del Ponte EM*, Garda-Bufferon J, Badiale-Furlong E (2012) Deoxynivalenol and nivalenol in commercial wheat grain related to Fusarium head blight epidemics in southern Brazil. *Food Chemistry* 132:1087-1091
DOI: <https://doi.org/10.1016/j.foodchem.2011.10.108>

Astolfi P, Reynoso MM, Ramirez L, Chulze SN, Alves TCA, Tessmann DJ, Del Ponte EM* (2012) Genetic population structure and trichothecene genotypes of *Fusarium graminearum* isolated from wheat in southern Brazil. *Plant Pathology* 61:289-295
DOI: <https://doi.org/10.1111/j.1365-3059.2011.02515.x>

Spolti P, Valdebenito-Sanhueza RM, Laranjeira FF, Del Ponte EM* (2012) Comparative spatial analysis of the sooty blotch/flyspeck disease complex, bull's eye and bitter rots of apples. *Plant Pathology* 61:271-280
DOI: <https://doi.org/10.1111/j.1365-3059.2011.02524.x>

Spolti P, Barros NC, Gomes LB, dos Santos J, Del Ponte EM* (2012) Phenotypic and pathogenic traits of two species of the *Fusarium graminearum* complex possessing either 15-ADON or NIV genotype. *European Journal of Plant Pathology* 133:621-629
DOI: <https://doi.org/10.1007/s10658-012-9940-5>

Guerra DS, Nickel O*, Del Ponte EM, Sanhueza RMV, Fajardo TVM, Marodin GAB (2012) Development of Glomerella leaf spot is enhanced in virus-infected maxi gala apples. *Journal of Plant Pathology* 94:237-241
DOI: <http://dx.doi.org/10.4454/jpp.fa.2012.017>

2011

Spolti P, Schneider L, Sanhueza RMV, Batzer J, Gleason ML, Del Ponte EM* (2011) Improving sooty blotch and flyspeck severity estimation on apple fruit with the aid of a diagrammatic scale.

European Journal of Plant Pathology 129:21-29
DOI: <https://doi.org/10.1007/s10658-010-9636-7>

Del Ponte EM*, Maia AHN, Santos TV, Martins EJ, Bathgen W (2011) Early-season warning of regional soybean rust epidemics using El Niño/Southern Oscillation information. *International Journal of Biometeorology* 55:575-583.
DOI: <https://doi.org/10.1007/s00484-010-0365-6>

Gleason ML*, Batzer JC, Sun G, Zhang R, Arias MMD Sutton TB, Crous PW, Ivanovich M, McManus PS, Cooley DR, Mayr U, Weber RWS, Yoder KS, Del Ponte EM, Biggs AR, Oertel B (2011) A New view of sooty blotch and flyspeck. *Plant Disease* 95:368-383
DOI: <https://doi.org/10.1094/PDIS-08-10-0590>

Astolfi P, dos Santos J, Schneider L, Gomes LB, Silva CN, Tessmann DJ, Del Ponte EM* (2011). Molecular survey of tricothecene genotypes of *Fusarium graminearum* species complex from barley in Southern Brazil. *International Journal of Food Microbiology* 148: 197-201
DOI: <https://doi.org/10.1016/j.ijfoodmicro.2011.05.019>

2009

Scoz LB, Astolfi P, Reartes DS, Schmale D, Moraes MG, Del Ponte EM* (2009) Tricothecene mycotoxin genotypes of *Fusarium graminearum* sensu stricto and *Fusarium meridionale* in wheat from southern Brazil. *Plant Pathology* 58:344-351.
DOI: <https://doi.org/10.1016/j.ijfoodmicro.2011.05.019>

Scherm H*, Christiano RSC, Esker PD, Del Ponte EM, Godoy CV (2009) Quantitative review of fungicide efficacy trials for managing soybean rust in Brazil. *Crop Protection* 28:774-782.
DOI: <https://doi.org/10.1016/j.cropro.2009.05.006>

Godoy CV, Flausino AM, Santos L, Del Ponte EM* (2009) Asian soybean rust control efficacy as a function of application timing under epidemic conditions in Londrina, PR. *Tropical Plant Pathology* 34:56-61.
DOI: <http://dx.doi.org/10.1590/S1982-56762009000100011>

2008

Del Ponte EM*, Esker PD (2008) Meteorological factors and Asian soybean rust epidemics: a systems approach and implications for risk assessment. *Scientia Agricola* 65:88-97
DOI: <http://dx.doi.org/10.1590/S0103-90162008000700014>

2007

Del Ponte EM*, Fernandes JMC, Bergstrom GC (2007) Influence of growth stage on *Fusarium* head blight and deoxynivalenol production in wheat. *Journal of Phytopathology* 155:577-581.
<https://doi.org/10.1111/j.1439-0434.2007.01281.x>

2006

Del Ponte EM*, Godoy CV, Li X, Yang XB (2006) Predicting severity of Asian soybean rust epidemics with empirical rainfall models. *Phytopathology* 96:797-803
DOI: <https://doi.org/10.1094/PHYTO-96-0797>

Del Ponte EM*, Godoy CV, Canteri MG, Reis EM, Yang XB (2006) Models and applications for risk assessment and prediction of Asian soybean rust epidemics. *Fitopatologia Brasileira* 31:533-544
DOI: <http://dx.doi.org/10.1590/S0100-41582006000600001>

2005

Del Ponte EM*, Fernandes JMC, Pierobom CR (2005) Factors affecting density of airborne *Gibberella zeae* inoculum. *Fitopatologia Brasileira* 30:55-60
DOI: <http://dx.doi.org/10.1590/S0100-41582005000100009>

Del Ponte EM*, Fernandes JMC, Pavan W (2005) A risk infection simulation model for Fusarium head blight of wheat. *Fitopatologia Brasileira* 30:634-642
DOI: <http://dx.doi.org/10.1590/S0100-41582005000600011>