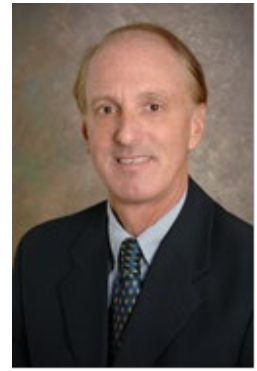


Short Curriculum Vitae 2026



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RESEARCH & TEACHING EXPERIENCE INTERESTS

My research has focused primarily on the epidemiology and management of oomycete pathogens of lima bean (*Phaseolus lunatus*), the cornerstone of the vegetable processing industry in Delaware and the mid-Atlantic region (MAR). The major focus of my research is to improve the productivity of lima bean by reducing the negative impact of *Phytophthora* spp. through the development of risk models and resistant cultivars adapted to the MAR. My laboratory currently works on the characterization of races of the pathogen *P. phaseoli*, the causal agent of downy mildew of lima bean, and mating types of *P. capsici*, the causal agent of pod rot. Additionally, we are monitoring the development of mefenoxam resistance in both of these important lima bean pathogens. Recently, we completed the reference genome of *P. lunatus* and identified several new dominant genes for resistance to *P. phaseoli* as well as minor genes. We are also using next-generation sequencing marker assisted breeding to speed the development lima bean cultivars with resistance to *P. phaseoli* to make use of this resource for the benefit of the Delaware vegetable processing industry. We are currently characterizing these new sources of resistance and working evaluating the effect of leaf shape on canopy humidity and hence the severity of downy mildew of lima bean. I have also carried out applied research in low resourced countries including Ecuador, Morocco, Jamaica and the Dominican Republic. These projects were in support of improving local food insecurity issues and funded primarily by USAID.

Over my career I taught PLSC 303 Introductory Plant Pathology, PLSC 140 People and Plants: Feast or Famine, PLSC 800 Current Concepts in Plant Health, annually. I have also taught PLSC 666 Advanced Plant Pathology or Applied Plant Virology, PLSC 411/611 Diagnostic Plant Pathology, PLSC 416/616 Plant Virology, PLSC 101 Introductory Botany, PLSC 302 Vegetable Science, PLSC 367 Flora of Ecuador and the Galapagos (study abroad). I developed and led the first UD study abroad program, in Ecuador, which resulting in 10 trips and more than 200 undergraduates experience the issues related to plants, plant health and the ecology of the Andes and the Galapagos Archipelago.

EDUCATIONAL BACKGROUND

Ph.D. Michigan State University, 1985 Botany and Plant Pathology

M.S. California State Polytechnic University, Pomona, 1977, Botany.

B.S. California State Polytechnic University, Pomona, 1974, Botany, *cum laude*, Outstanding Student in Botany Award.

PROFESSIONAL EXPERIENCE

2023 Emeritus Professor of Botany and Plant Pathology

2014 Visiting Professor University of Siena, Italy

2014 Visiting Professor Pontifical Catholic University, Quito, Ecuador

2007 Professor of Botany and Plant Pathology, Department of Plant and Soil Sciences,

- University of Delaware. Applied research on diseases of vegetable crops and virus diseases of all Delaware crops.
- 1995-2006 Associate Professor of Botany and Plant Pathology. Department of Plant and Soil Sciences, University of Delaware.
- 1989-1994 Assistant Professor of Botany and Plant Pathology, Department of Plant and Soil Sciences, University of Delaware.
- 1986-1988 Research Plant Pathologist, Department of Plant and Soil Sciences, University of Delaware, Research and Education Center. Applied research on production and pathology of vegetable and agronomic crops.
- 1981-1985 Graduate Research Assistant, Department of Botany and Plant Pathology, Michigan State University as Ph.D. student.
- 1978-1980 Teaching Assistant and Associate Instructor, Department of Botany, University of California, Davis. Taught laboratories and discussion sessions for General Botany, Plant Physiology, Plant Anatomy and Electron Microscopy as Ph.D. student.
- 1977-1978 Research Assistant, Los County Arboretum Research Division, Arcadia, CA.
- 1975-1977 Teaching Assistant, Department of Biological Sciences, Cal Poly Pomona. Taught laboratories in general biology, plant structure and function, plant morphology and plant physiology as M.S. student.

HONORS/PROFESSIONAL SERVICE

College of Agriculture and Natural Resource Excellence in Teaching and Advising Awardee, 2019
 Fellow of the American Phytopathological Society, elected 2018
 Fellow of the International Society of Plant Pathology, elected 2018
 Editorial Board of Mediterranean Journal of Phytopathology, appointed 2016-
 Member of the Accademia dei Fisiocritici, University of Siena, Italy, elected 2015
 Vice President, International Society for Plant Pathology (ISPP), 2013-2018
 Organizing Chair - the International Congress of Plant Pathology 2018, Boston, USA
 Treasurer, ISPP, 2008-2013
 President Obama's Volunteer Service Award from USAID Feed the Future Program, 2010
 APS Financial Advisory Committee, 2005-2007
 APS Representative and Councilor to the International Society of Plant Pathology, 2005-2018
 Potomac Division Councilor of APS, 2005-2007
 Member APS Ad Hoc Committee on the Future of International Programs, 2007
 Senior Editor, APS Education Center, 2009-2015
 Senior Editor, *Laboratory Teaching Manual for Introductory Plant Pathology*, APS Press
 Panel Chair for USDA-ARS Office of Science Quality Review, 2007
 Potomac Division Distinguished Service Award, 2006
 Past President, and Vice-President of the Potomac Division, APS. 1992-1994
 Past Associate Editor - *Plant Disease: an International Journal of Applied Plant Pathology*
 Sigma Xi – Science Honor Society, inducted 1977
 Beta Beta Beta – Biology Honor Society, inducted 1976

I have secured competitive research grants in excess of \$7 million over my career and advised 17 M.S. and Ph.D. students, served on 20 additional graduate committees and advised dozens of undergraduate students. I have published over 90 peer reviewed journal articles.

Over my 37 years at UD, I taught eight (8) different courses to over 2,000 undergraduate and graduate students both on campus and study abroad. These courses include Introductory Botany (5x), People and Plants: Feast or Famine (27x), Vegetable Science (6x), Plants of Ecuador and the Galapagos (7x), Introductory Plant Pathology (18x), Diagnostic Plant Pathology (8x), Plant Virology (10x) and Current Concepts in Plant Health (25x),

Selected Refereed Publications

Wisser, R.J. S. J. Oppenheim, E.G. Ernest, T.T. Mhora, M. Dumas, N.F. Gregory, **T.A. Evans**, N.M. Donofrio. 2020. Genome assembly of a Mesoamerican-derived *Phaseolus lunatus* cultivar adapted to the Mid-Atlantic Region of the USA. Submitted to G3 Genome Report. Preprint version can be found at <https://www.biorxiv.org/content/10.1101/2020.08.19.257105v1.full>

Abeysekara, N.S., H. Hickman, S. Westhafer, G. C. Johnson, **T. A. Evans**, N. F. Gregory and N. M. Donofrio. 2019. Characterization of *Phytophthora capsici* isolates in Delaware, an emerging threat to lima bean. *Phytopathologia Meditanea* 58(3) 535-546.

Santamaria, L. E.G. Ernest, N.F. Gregory and **T.A. Evans**, 2018. Inheritance of resistance in lima bean to *Phytophthora phaseoli*, the causal agent of downy mildew of lima bean. *HortScience* 53(6) 777-781.

Byrne, D.H. P. Klein, M. Yan, E. Young, and J. K. Ong, M. Shires J. Olson, M. Windham, **T.A. Evans** and D. Novick. 2018. Challenges of breeding rose rosette-resistant roses. *HortScience* 53(5) 604-608.

Mhora, T.T., E.G. Ernest, R.J. Wisser, **T.A. Evans**, M.E. Patzoldt, N.F. Gregory, S. Polson, and N. M. Donofrio. 2016. Genotyping-by-Sequencing to Predict Resistance to Lima Bean Downy Mildew in a Diversity Panel. *Phytopathology*, 106 (10) 1152-1158 Doi 10.1094/PHYTO-02-16-0087-FI.

Kness, A., G. Johnson, K. Everts, **T. Evans**, N. Donofrio and E. Ernest. 2016. Managing pod rot of lima bean caused by *Phytophthora capsici* with fungicides in the mid-Atlantic region. *Plant Health Progress*. Doi:10.1094/PHP-BR-16-0015

Perini, C. G. Bonari, C. Barlucci, and **T.A. Evans**. 2016. The Terracotta Fungi of Valenti Serini. Solicited as a Feature Article by American Phytopathological Society Doi:10.1094/APSFeature-2016-05.

Ordoñez, M.E., D. A. Jácome, C. B. Keil, and R. J. Montúfar and **T.A. Evans**. 2016. The First Report of Bud Blight Caused by *Phytophthora palmivora* in Heart of Palm. *Plant Disease*. 100(6) 1248.

Evans, T.A., E.G. Ernest and N.F. Gregory. 2012. Field and Greenhouse Evaluation of Lima Bean Germplasm for Resistance to *Phytophthora capsici*, the Causal Agent of Lima Bean Pod Rot. *Bean Improvement Cooperative* V7:70.

Kunjetti, S.G., **T.A. Evans**, A.G. Marsh, N.F. Gregory, S. Kunjeti, B.C. Meyers, V.S. Kalavacharla and N. M. Donofrio. 2012. RNA-Seq reveals infection-related global gene changes in *Phytophthora phaseoli*, the causal agent of lima bean downy mildew. *Molecular Plant Pathology* 13:454-466.

Ernest, E.G. **T.A. Evans** and R.J. Wisser. 2011. Lima bean breeding and genetic research at the University of Delaware. *Bean Improvement Cooperative* V6: 21-23.

Mulrooney, R.P., N.F. Gregory and **T.A. Evans**. 2010. Evaluation of fungicides applied curatively for the control of downy mildew of baby lima bean, 2009. *Plant Disease Management Reports* V4:64

Evans, T.A. and C. Keil. 2009. A survey of scotch bonnet peppers in Jamaica for plant viruses and insect pests. *Journal of Environmental Monitoring and Restoration*. 6:68-73.

- Soria, S. C. Taboada, R. Vega Gonzales, **T.A. Evans**, V.D. Damsteegt, and S. Kitto. 2009. *In Vitro* and field performance of virus-tested and virus-infected plants in the field in Ecuador. *Experimental Agriculture* 45:483-497.
- Mulrooney, R.P., N.F. Gregory, and **T.A. Evans**. 2008. Evaluation of fungicides for the control of downy mildew of lima bean, 2007. *Plant Disease Management Reports* V2:16.
- Davidson, C.R., **T. A. Evans**, R. P. Mulrooney, N. F. Gregory, R. B. Carroll and N.R. O'Neill. 2007. Lima bean downy mildew epidemics caused by new physiological races of *Phytophthora phaseoli*. *Plant Disease* 92(5):670-674.
- Evans, T. A.**, L.C Miller, B.L. Vasilas, R.W. Taylor and R.P. Mulrooney. 2007. Management of *Xiphinema americanum* and soybean severe stunt disease in soybean using crop rotation. *Plant Disease* 91(2):216-219.
- Evans, T.A.**, R.P. Mulrooney, N.F. Gregory, and E. Kee. 2007. Lima bean downy mildew: impact etiology and management strategies for Delaware and the mid-Atlantic U.S. *Plant Disease* 91(2):128-135 DOI:10.1094/PDIS-91-2-0128.
- Santamaria, L. **T.A. Evans**, R.P. Mulrooney, and R.B. Carroll. 2006. Evaluation of USDA and CIAT lima bean germplasm accessions for resistance to downy mildew, 2005. *Biological and Cultural Tests (online) Report* 21:V013. The American Phytopathological Society, St. Paul, MN.
- Santamaria, L. **T.A. Evans**, R.P. Mulrooney, and R.B. Carroll. 2006. Evaluation of lima bean cultivars for resistance to downy mildew, 2005. *Biological and Cultural Tests (online) Report* 21:V014. The American Phytopathological Society, St. Paul, MN.
- Davey, J.F., R.P. Mulrooney, **T.A. Evans** and R.B. Carroll. 2006. Timing of fungicide application for the control downy mildew of baby lima bean, 2005. *Fungicide and Nematicide Tests (online) Report* 61:V040. The American Phytopathological Society, St. Paul, MN.
- Pill, W.G., **Evans, T.A.**, M.W. Orzeleski, R.P. Mulrooney, and W.E. Kee. 2005. The 'Maffei 15' lima bean compensates for reduced plant stand. *HortScience* 40:2024-2025.
- Santamaria, L. **T.A. Evans**, R.P. Mulrooney, and R.B. Carroll. 2005. Evaluation of USDA and CIAT lima bean germplasm accessions for resistance to downy mildew, 2004. *Biological and Cultural Tests (online) Report* 20:V013. The American Phytopathological Society, St. Paul, MN.
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- Davey, J.F., R.P. Mulrooney, **T.A. Evans** and R.B. Carroll. 2005. Timing of fungicide application for the control downy mildew of baby lima bean, 2004 *Fungicide and Nematicide Tests (online) Report* 60:V040. The American Phytopathological Society, St. Paul, MN.
- Davey, J.F., R.P. Mulrooney, **T.A. Evans** and R.B. Carroll. 2005. Timing of Phostrol fungicide application for the control downy mildew of baby lima bean, 2004. *Fungicide and Nematicide Tests (online) Report* 60:V043. The American Phytopathological Society, St. Paul, MN.

Santamaria, L. **T.A. Evans**, R.P. Mulrooney, and R.B. Carroll. 2004. Evaluation of baby lima bean cultivars for resistance to downy mildew caused by *Phytophthora phaseoli*, 2003. Biological and Cultural Tests (online) Report 59:V107. The American Phytopathological Society, St. Paul, MN.

T.A. Evans, L. Santamaria, R.P. Mulrooney, and R.B. Carroll. 2003. Evaluation of baby lima bean cultivars for resistance to downy mildew, 2002. Biological and Cultural Tests (online) Report 18:V028. The American Phytopathological Society, St. Paul, MN.

Evans, T.A., C.R. Davidson, J.D. Dominiak, R.P. Mulrooney, and R.B. Carroll. 2002. Two new races of *Phytophthora phaseoli* from lima bean in Delaware. Plant Disease 86:1091.

Davidson, C.R., R.P. Mulrooney, R.B. Carroll and **T.A. Evans**. 2002. First report of *Phytophthora capsici* on lima bean in Delaware. Plant Disease 85:886.

Sedegui, M., R.B. Carroll, A.L. Morehart, **T.A. Evans**, S.H. Kim and R. Lakhdar. 2000. Genetic structure of *Phytophthora infestans* populations in Morocco. Plant Disease 84:173-176.

Evans, T.A. 1999. Soybean Severe Stunt Nepovirus. Pp 88-89. Chapter In Hartman, G. L., Sinclair, J. B., and Rupe, J. C. The Compendium of Soybean Disease, 4th edition, APS Press, St. Paul, MN.

Mulrooney, R.P., **T.A. Evans** and R.W. Taylor. 1999. Field evaluation of selected soybean cultivars for resistance to soybean severe stunt virus, 1998. Biological and Cultural Control Tests. Vol 14: 95. The American Phytopathological Society, St. Paul, MN.

Soria, S. L., R. Vega, V.D. Damsteegt, L.L. McDaniels, S.L. Kitto and **T.A. Evans**. 1998. Occurrence and partial characterization of a mechanically transmissible virus in mashua (*Tropaeolum tuberosum*) from Ecuador. Plant Disease 82:69-73.

Tainter, F. H., G.L. Schumann and **T.A. Evans**. 1995. Development of the plant pathology laser videodisc. Journal of Natural Resources and Life Sciences Education 24:48-52.

Schumann, G.L., **T.A. Evans** and F.H. Tainter. 1993. An Interactive Videodisc Introduction to Plant Pathogens and Plant Disease. American Phytopathological Society, St. Paul, MN. translated into Spanish and French (1998). APS Press, St. Paul, MN.

Evans, T.A., G.L. Schumann and F.H. Tainter. 1993. A Plant Disease Interactive Video Image Glossary. APS Press, St. Paul, MN.

Evans, T.A., G.L. Schumann and F.H. Tainter. 1992. A Plant Disease Video Image Resource Database. American Phytopathological Society Press, St. Paul, MN, 10,000 records.

Weldekidan, T., **T.A. Evans**, R.B. Carroll and R.P. Mulrooney. 1992. Etiology of soybean severe stunt disease and some properties of the causal virus. Plant Disease 76:747-750.

DeVries, R.M., **T.A. Evans** and C.T. Stephens. 1992. Effect of asparagus virus infection on asparagus tissue culture propagation and persistence through culture. Plant Cell, Tissue and Organ Culture 31:31-35.

Evans, T.A., G.L. Schumann and F.H. Tainter. 1992. A Plant Disease Video Image Resource. American Phytopathological Society Press, St. Paul, MN, 10,000 images.