

Larry Stein

Associate Department Head/Professor & Extension Horticulturist
Horticultural Sciences
Texas A & M AgriLife Extension Service
1619 Garner Field Road, Uvalde, TX 78802

Education and Training

Texas A & M University	Horticulture	BS, 1979
Texas A & M University	Horticulture	MS, 1981
Texas A & M University	Horticulture	PhD, 1985

Research and Professional Experience

September 2017 to present - Regents Fellow

September 2012 to present – Associate Department Head for Extension Horticulture and Professor and Extension Horticulturist.

September 1999 to present - Professor and Extension Horticulturist.

September 1992 to September 1999 - Associate Professor and Extension Horticulturist for Southwest District 10 based at Uvalde.

December 1991 to August 1992 - Associate Professor and Extension Horticulturist for Central District 8 based at Stephenville.

June 1985 to December 1991 - Extension Horticulturist for Central District 8 based at Stephenville.

September 1982 to June 1985 - Extension Assistant in Horticulture in TAMU Extension Horticulture Project Group.

June 1982 to August 1982 - Extension Assistant in Horticulture for \$60,000 grape grant from the State Employment & Training Council. Two Extension Bulletins and a slide-tape program on commercial grape production techniques were produced.

January 1982 to May 1982 - Technician II, Department of Horticultural Sciences, Texas A&M University, College Station.

June 1980 to December 1981 - Graduate Assistant Research for Department of Horticultural Sciences, Texas A&M University, College Station. Provided technical leadership in assembling, calibrating and operating the \$50,000 Inductively Coupled Argon Plasma Emission Spectrophotometer at the TAMU Pecan Research Laboratory for statewide pecan tissue analysis program.

August 1979 to May 1980 - Graduate Assistant Teaching for the Department of Horticultural Sciences, Texas A&M University, College Station. Taught plant propagation and nut culture laboratories.

Professional Activities:

2000 to Present - International Spinach Conference planning committee

2000 to Present - Coordinated Extension Marketing Assistance Program (CEMAP) Executive Board

2000, 2004, 2008, 2012, and 2016 - International Spinach Conference, Program Chair

2019 –present – Texas Coordinator of International Spinach Field Day

Honors and Awards:

2021 Distinguished Achievement Award, Texas A & M Former Students Association

2019 Vice Chancellor Award in Excellence, Specialist

2017 Regents Fellow Award

2017 Texas A&M AgriLife Extension Team Superior Service award

Grants Received:

TDA, Increasing strawberry profitability through two additional years of research and grower training, Co-Pi, 2020 – 2022.

TDA, Beyond salad: harvesting spinach seed for grain consumption as additional source of income, Co-Pi, 2020 – 2021.

Synergistic Activities

Work with Jim Correll to plan and coordinate the International Spinach Conference. Coordinate, plan, plant and maintain the disease screening spinach nursery in Texas. Work with Lindsey duToit on stemphyllium inoculation studies.

Publications

Ainong Shi, Gehendra Bhattarai, Haizheng Xiong, Carlos A Avila, Chunda Feng, Bo Liu, Vijay Joshi, Larry Stein, Beiquan Mou, Lindsey J du Toit, James C Correll. 2022. Genome-wide association study and genomic prediction of white rust resistance in USDA GRIN spinach Germplasm. *Horticulture Research*, uhac069, <https://doi.org/10.1093/hr/uhac069>

Hartmann, T.P., J.J. Scheiner, L.A. Stein, A.R. King, and S.E. Feagley. 2020. Young field-grown kiwifruit plants' response to early autumn frost injury in Texas. HortTechnology (In-press).

Liu, Bo & Stein, Larry & du Toit, Lindsey & Feng, Chunda & Correll, James C.. (2020). Three new fungal leaf spot diseases of spinach in the United States and the evaluation of fungicide efficacy for disease management. *Plant Disease*. 10.1094/PDIS-04-20-0918-RE.

Montoya, J., M.A. Arnold, J. Rangel, M.A. Palma, and L.A. Stein. 2020. Pollinator-attracting Companion Plantings Increase Crop Yield of Cucumbers and Habanero Peppers. *HortScience*, 55(2) 164-169.

Shi, A.; Correll, J.; Feng, C.; Mou, B.; Avila, C. A.; Stein, L. A.; Hogan, R.; du, T., Lindsey; Qin, J.; Bhattarai, G.; Awika, H. O.; Gyawali, S.; Kandel, S. Progress at Developing Genetic and Molecular Resources to Improve Spinach Production and Management. 2019. *HORTSCIENCE*, 54 (9), S137–S138. Hartmann, T.P., J.D. Spiers, D. Creech, L.A. Stein, and J.J. Scheiner. Effects of Warm Temperature Interruption on the Winter Chilling Accumulation of Kiwifruit (*Actinidia chinensis* Planch. and *A. deliciosa* A. Chev.) Using Excised Canes. In the proceedings of the National American Society for Horticultural Science Conference. Orlando, Florida, August 2020.

Hartmann, T.P., D. Creech, L.A. Stein, and J.J. Scheiner. Response of Young Field-Grown Kiwifruit (*Actinidia chinensis* Planch. and *A. deliciosa* A. Chev.) Plants to Fall Frost. In the proceedings of the Southern Region American Society for Horticultural Science Conference. Louisville, Kentucky, February 2020.

Hartmann, T.P., L. Stein, S. Feagley, D. Creech, and J.J. Scheiner. Response of Field-grown Kiwifruit (*Actinidia chinensis* Planch. and *A. deliciosa* A. Chev.) Plants to Soil Alkalinity. In the proceedings of the Southern Region American Society for Horticultural Science Conference. Birmingham, Alabama, February 2019.

Hartmann, T.P., L. Stein, and J.J. Scheiner. Investigating the Effects of Warm Temperature Interruption on Winter Chilling Accumulation of Kiwifruit (*Actinidia chinensis* Planch. and *A. deliciosa* A. Chev.) Using Excised Canes. In the proceedings of the National American Society for Horticultural Science Conference. Washington, D.C. August 2018.

Spawton, K.A., M.L. Derie, J.C. Correll, L.A. Stein, G. Olaya, R. N. Raid, G.V. Sandoya, T.L. Peever, and L.J.

Du Toit. 2019. Characterization of *Stemphyllium* spp. from spinach based on molecular data, host response, and azoxystrobin sensitivity (abstract). APS annual meeting, Cleveland, OH.

Montoya, J., M.A. Arnold, J. Rangel, M.A. Palma, and L.A. Stein. 2019. Evaluating perennial and annual companion plantings for pollinator enhancement of yields in small-scale vegetable production. 2019 Annual Conference of the American Society for Horticultural Sciences, 21-25 July 2019, Las Vegas, NV. *HortScience* 54(9):S80-S81. (Abstr.).

Montoya, J.E., M. Arnold J. Rangel, L.A. Stein and M. Palma. 2017. Preliminary data indicates annual and perennial pollinator attracting plants differentially affect yield of cucumbers and habanero peppers. Annual Conf. of the American Society for Horticultural Science, Waikoloa, HA, 19-22 Sept. 2017. *HortScience* 52(9):S256 (Abstra.).

Relevant Technical Publication:

Stein, Larry. 2015. High density spinach production in Texas and disease management (abstract). Proceedings 2015 International Spinach Conference, Yuma, Arizona.

- Stein, Larry. 2013. Growing fresh market and processing spinach in Texas (abstract).
Proceedings 2013 International Spinach Conference, Guangzhou, China.
- Stein, Larry A. 2011. Fungicides for the development of an effective spinach white rust control system (abstract). Proceedings 2011 International Spinach Conference, Amsterdam, Netherlands.
- Stein, Larry A., Aaron Phillips, & Marcel Valdez. (2009). The Effects of Plant Population on Processing and Fresh Market Spinach Yield and Quality. In Abstracts of the International Spinach Conference. University of Arkansas.
- Stein, Larry A. ed. 2008. "Abstracts of the International Spinach Conference." Texas AgriLife Extension Service, Uvalde, TX.
- Stein, Larry A., Aaron Phillips, and Marcel Valdez. 2008. "The Effects of Pre-Plant Nitrogen and Plant Population on Processing and Fresh Market Spinach Yield and Quality." In Abstracts of the International Spinach Conference. Texas AgriLife Extension Service, Uvalde, TX.
- Phillips, Aaron, Larry Stein, and Marcel Valdez. 2008. "Efficacy of Soil and Foliar Applied Pesticides on White Rust." In: Abstracts Of the International Spinach Conference. Texas AgriLife Extension Service, Uvalde, TX.