

GINA E. FERNANDEZ

Department of Horticultural Science
2721 Founders Drive
North Carolina State University
Raleigh, NC 27695-7609

Phone: 919/513-7416
Fax: 919-515-2505
gefernan@ncsu.edu

Professional Education

Ph.D. Cornell University, Ithaca, NY. 1994. Pomology.
M.S. University of Minnesota St. Paul, MN. 1987. Horticulture.
B.S. Ripon College, Ripon, WI. 1981. Biology.

Appointments

2019 - present, John D. and Nell R. Leazar Distinguished Professor
2021-present. Director of Graduate Programs
2010 - Professor/ Extension Specialist, Dept. Hort. NCSU
2002-2009: Associate Professor/ Extension Specialist, Dept. Hort. NCSU
1996 - 2002: Assistant Professor/ Extension Specialist, Dept. Hort. NCSU

Synergistic Teaching, Research, and Extension Activities

Professional Service outside NC State University

- American Society for Horticultural Science, 1986 – present
- International Society for Horticultural Science, 1997 – present

Service within NC State University

- Southern Region Small Fruit Consortium Board member, 2013-2021
- University RPT Committee, 2011-2012
- CALS Research Committee, 2017-present

Extension

- Participate/coordinate 1-2 agent trainings/year
- On Farm trials of NCSU strawberry and caneberry selections in NC and other states

Collaborators and Other Affiliations

Current Collaborators

- Pairwise Plants, USDA, U. Arkansas, Cornell, BC Berry Breeders and PSI. Rubus diversity.
- Strawberry plant propagation in controlled environments. Multiple institutions. See grant section.
- Evaluate *Rubus* and strawberry germplasm from USDA-ARS and University breeding programs

Thesis, Dissertation and Post Graduate advisor or committee member

- Current - Graduate students (6), Post doctoral associate (1)
- Past – Post Doctoral Associates (2), Graduate students (19)

Advisory Boards

- North American Brambles Growers Association, 1996 - present
- North American Strawberry Growers Association, 1996 – present
- North Carolina Strawberry Association, 1996 – present
- North Carolina Commercial Blackberry and Raspberry Association, 2008 – present

Honors and Awards

- North American Raspberry and Blackberry Association, Distinguished Service Award. 2019

Publications (2019-2023)

- T. Brūna, R.Aryal, O. Dudchenko, J. Sargent, D. Mead, M. Buti, A. Cavallini, T. Hytönen, J. Andrés, M. Pham, D. Weisz, F. Mascagni, G. Usai, L. Natali, N. Bassil, G. Fernandez, A. Lomsadze, M.

Armour, B. Olukolu, T.Poorten, C. Britton, J. Davik, H. Ashrafi, L. Aiden, M. Borodovsky, M. Worthington. 2022. A chromosome-length genome assembly and annotation of blackberry (*Rubus argutus*, cv. 'Hillquist'). bioRxiv 2022.04.28.489789;

<https://doi.org/10.1101/2022.04.28.489789>.<https://academic.oup.com/g3journal/advance-article/doi/10.1093/g3journal/jkac289/6798616>

- M. R. Willman, J.M. Bushakra, N.Bassil, C. Finn, M. Dossett, P. Perkins-Veazie, C. M. Bradish, G. E. Fernandez, C. A. Weber, J.C. Scheerens, L.Robbins Dunlap, J.Fresnedo-Ramírez. 2022. Analysis of a multi-environment trial for black raspberry (*Rubus occidentalis* L.) quality traits. *Genes*. 13:418.
- S.Chandra, Y. Oh, H.Han, N.Salinas, A. Anciro, V. Whitaker, J. Chacon, G. E Fernandez, S.Lee. 2021. Comparative Transcriptome Analysis to Identify Candidate Genes for FaRCg1 Confering Resistance Against *Colletotrichum gloeosporioides* in Cultivated Strawberry (*Fragaria ×ananassa*). *Frontiers in Genetics*. 12: <https://doi.org/10.3389/fgene.2021.730444>
- Kraft L.J., Sit T.L., Diepenbrock L.M., Ashrafi H., Aryal.R, Fernandez G.E., Burrack H. J. 2021. Detection of Fruit Meals Within Laboratory-Raised and Field-Trapped Adult *Drosophila suzukii* (Diptera: Drosophilidae) Guts. *Frontiers Ecol. Evol.* <https://doi.org/10.3389/fevo.2021.719645>
- Samtani, J.B., C.R. Rom, H. Friedrich, S.A. Fennimore, C.E. Finn, A. Petran, R. W. Wallace, M. P. Pritts, G. Fernandez, C.A. Chase, C. Kubota, B. Berefurd. 2019. The status and future of the strawberry industry in the United States. *HortTechnology*. DOI: <https://doi.org/10.21273/HORTTECH04135-18>
- Adhikari, T, G. Fernandez, G. Chacon, F. Louws. 2019. First Report of Anthracnose Causing both Crown and Fruit Rot of Strawberry by *Colletotrichum siamense* in North Carolina. *Plant Disease*. 103:7, 1775-1775. <https://doi.org/10.1094/PDIS-02-19-0314-PDN>
- Jacobs, R., T. Adhikari, J. Pattison, G. C. Yencho, G. Fernandez, and F. Louws. 2019. [Inheritance of Resistance to *Colletotrichum gloeosporioides* and *C. acutatum* in Strawberry](https://doi.org/10.1094/PHYTO-08-18-0283-R). <https://doi.org/10.1094/PHYTO-08-18-0283-R>. *Phytopathology*. 109: 428-435.

Plant Patents

- NC451, 'Nantahala' primocane fruiting red raspberry. G.Fernandez and J. Ballington. US PP 20689.
- NC 430, 'Von' blackberry. Gina Fernandez and James R. Ballington. USPP 279299.
- 'Liz' NCS 10-038 Strawberry. PP32705. 2020.
- 'Rocco' NCS 10-156 Strawberry. PP32432. 2020.

Selected Extension Publications

- Southeast Caneberry Production Guide. Southern Region Small Fruit Consortium. 2023. Gina E. Fernandez, Amanda McWhirt, Christine Bradish. NCCES. <https://rubus.ces.ncsu.edu/spotlight/caneberry-production-guide/>
- Sustainable Practices for Plasticulture Strawberry Production in the Southeast. 2015. Amanda McWhirt, Dr. Gina Fernandez and Dr. Michelle Schroeder-Moreno. http://content.ces.ncsu.edu/sustainable-practices-for-plasticulture-strawberry-production-in-the-southeast/#section_heading_4750

Grants, Gifts and Contracts

Total \$9,193,531 (partial list below)

- Development and integration of next generation propagation Strategies to increase the resilience of the US strawberry supply chain.2021. \$5,294,195
- Advanced cultivar trials of caneberries in western NC. 2021. North Bay Produce. G.E. Fernandez, T. Kon and P. Perkins-Vaezie. \$250,871
- Leazar Endowment. 2019-23. \$176,352
- Improved management of Primocane-fruiting blackberry. NCDA. T Kon and G. Fernandez. \$99,603
- Plant Breeding Consortium Funds. 2020. \$12,500 w/ Guillermo Chacon-Jimenez.
- TriEst Ag Group. Haygrove Multibay Tunnels. Equipment Loan Agreement. \$55,000
- Breeding Flavorful Disease Resistant Strawberry Cultivars. 01/01/2020 - 12/31/2021. NC Department of Agriculture & Consumer Services. \$105,609.00