Dr. Y. Gary Gao

Professor and Small Fruit Specialist
South Centers - College of Food, Agricultural and Environmental Sciences
The Ohio State University, 1864 Shyville Road, Piketon, OH 45661
The Ohio State University

Office Phone: 614-247-9071 Fax: 740.289.4591 Cell: 614-556-7507 email: <u>Gao.2@osu.edu</u>

PROFESSIONAL EXPERIENCE

May 30, 2019 - Present: **Professor & Small Fruit Specialist**, OSU South Centers, Piketon, OH. August 2019 – Present: **Courtesy Professor**, Department of Horticulture and Crop Science, 2001 Fyffe Court, Columbus, OH 43210

April 2011 - May 29, 2019: **Associate Professor & Small Fruit Specialist**, OSU South Centers, Piketon, OH August 2006 - March 2011: **Associate Professor and Extension Educator**, OSU Extension in Delaware County.

July 2002 - August 2006: **Associate Professor and Extension Educator**, OSU Extension in Clermont County

April 1995 - June 2002: **Assistant Professor and Extension Agent**, OSU Extension, Clermont County.

August 1994 - March 1995: Extension Agent III, OSU Extension in Clermont County

January 1994 - August 1994: **Postdoctoral Researcher**, Department of Horticulture, Purdue University September 1993 - December 1993. Postdoctoral Researcher, Department of Horticulture, The Ohio State University

September 1988 - August 1993. **Graduate Research Associate**, Dept. of Horticulture, Ohio Agricultural Research and Development Center, The Ohio State University

January 1986 - August 1988. **Graduate Student and Exchange Fellow**, Ohio Agricultural Research and Development Center, The Ohio State University

July - December 1985: Instructor, Pomology, Department of Horticulture, Shanxi Agricultural University

EDUCATION

Doctor of Philosophy 1993, The Ohio State University, Viticulture, Columbus, Ohio Master of Science 1998, The Ohio State University, Viticulture, Columbus, Ohio Bachelor of Science 1985, Shanxi Agricultural University, Pomology, P.R. China

STUDENTS, POSTDOCS AND VISITING SCHOLARS

1) Undergraduate, graduate, and professional courses taught

I have provided guest lectures for three undergraduate courses in the Department of Horticulture and Crop Science, and guest lectures to capstone courses for the Department of Entomology and Department of Plant Pathology at The Ohio State University.

2) Involvement in graduate/professional exams, theses, and dissertations, and undergraduate research

I applied for graduate faculty status through the Department of Horticulture and Crop Science in 2017 since I was asked to severe as an advisor for a perspective graduate student. My application was reviewed and approved by the Promotion and Tenure Committee of the Horticulture and Crop Department. Consequently, I received Ph.D. faculty status from the Graduate School at The Ohio State University in July 2017.

- Committee member for a Ph.D. candidate with the Department of Plant Pathology –
 2019 Present.
- Committee member for a M.S. student with the Department of Plant Pathology 2021-Present.
- Research Advisor for a Ph.D. student from Brazil 2018 2019
 This Ph.D. student came to United States as a visiting scholar for a six-month internship that was funded by the Brazilian government. I also funded another 6 months of his stay after his internship was over.
- a) Graduate Students: Number Completed and Number Current NA.
- b) Describe any noteworthy accomplishments of graduate students for whom you have been the advisor of record, for example, publications during or emanating from graduate program, awards for graduate work, prestigious post-docs, or first post-graduate positions.

NA.

c) Senior Honor Thesis

NA.

d) Describe any noteworthy accomplishments of undergraduate students, in particular related to research, for whom you have been the advisor of record (publications, posters, honors or student awards).

NA.

3) Involvement with Postdoctoral Scholars and Researchers

Postdoctoral Researcher:

6/2017 - 6/2019

Dr. Jiangbo Fan, Department of Plant Pathology and OSU South Centers, The Ohio State University. Dr. Fan became a faculty member of Shanghai Jiaotong University in 2019.

I contribute 50% toward this postdoc's salary and benefits. This position is funded by a multi-state USDA NIFA grant that was applied for by the candidate with a group of researchers from Oregon State University, The Ohio State University, Texas A&M, University of Tennessee, and USDA-ARS.

International Visiting Scholars

5/2019 - 6/2020

Dr. Jiuxing Lu, Instructor, College of Forestry, Hanan Agricultural University, Zhengzhou, China My Role: Research Advisor.

6/2018 – 5/2019	Dr. Pengfei Wang , Associate Professor, College of Horticulture, Shanxi Agricultural University, Taigu, Shanxi, China. My Role: Research advisor.
9/2017 – 12/2018	Mr. Yanliang Chu , Instructor, College of Biotechnology, Jiangsu University of Science and Technology Zhenjiang, Jiangsu, China. My Role: Research advisor.
7/2018 – 1/2019	Ricardo Bordignon Medina , Ph.D. Student of the University of São Paulo ESALQ, Brazil. My Role: Research advisor.
3/2016 – 2/2017	Dr. Dong Qin , Associate Professor, College of Horticulture, Northeast China Agriculture University, Harbin, Heilongjiang, China. My Role: Research advisor.

EXTENSION AND CONTINUING EDUCATION INSTRUCTION

I have made many presentations to audiences of various sizes at different workshops and conferences across Ohio. Some of them are OPGMA Congress (Produce Network), Ohio Grape and Wine Conference, Farm Science Review, OSU Nursery Short Course, Urban Farmer Training Program (Franklin County), Master Gardener Volunteer Program, Berry Workshops, and Specialty Crop School. I was invited to give presentations in Kentucky, Michigan, New Jersey, West Virginia, and Virginia. I have given quite a few invited talks in China on fruit production and landscape horticulture in multiple provinces. My presentations over the years have reached tens of thousands.

a. Teaching in Group Settings

The following tables provide a summary of the group teaching activities since 2010. The participants include extension professionals and clientele, both youth and adults. Group teaching included workshops, seminars, or classes and on-going groups.

Blueberry and Bramble Production: Total number of participants – 5,527 Number of times course offered – 125.

Wine Grape Production: Total number of participants – 2,468 Number of times course offered – 70.

General Horticulture: Total number of participants – 2,802 Number of times course offered – 121. Other Teaching:
Total number of participants – 226
Number of times course offered – 25.

Group Teaching Total Number of Participants: 11,023 Group Teaching Total Number of Courses Offered: 336

b. Individual Instruction

As an Extension faculty member, I have been providing individual instruction to Extension professionals, youth, and adult clientele. This instruction occurs through phone calls, electronic communication, Ask an Expert at eXtension, and face-to-face meetings. For eXtension, I created the Ohio Commercial Berry Production group and have answered questions from that group.

Blueberry and Bramble Production:

Total number of contacts – 1,698

Wine Grape Production:

Total number of contacts – 1,326

General Horticulture:

Total number of contacts - 2,238

Other Teaching:

Total number of contacts - 962

Total number of individual contacts - 6,224

EXTENSION PROGRAMS (SELECTED)

1. Fall Fruit Research Updates and Live Q&A (Zoom)

The program was offered in 2021 and 2020 via Zoom and was well received. I was the lead person for this program with the help of my research assistant and two program assistants.

2. Fruit Pruning Workshops

This program was offered each year at South Centers in person from 2012 to 2020. It was offered as Virtual Pruning Workshop in 2021-2023. The program drew 624 registrants in 2023. I was the lead person for this workshop. My research assistant and two program assistants helped with the program. We also had guest presenters over the years. I gave pruning demonstrations of various fruit crops.

3. Fruit Production Series:

A three-week small fruit production was offered in 2021. Blueberries, blackberries, and raspberries were the featured crops. Zoom was used to deliver this series. A total of more than 500 attendees registered for this program.

4. Southern Ohio Grape and Wine Analysis Workshop

This program was offered in person for a few years at OSU South Centers. I initiated this program with the help of our HCS enology and viticulture research and extension team members.

5. Southern Ohio Fruit Field Night

This program was offered from 2012 to 2019 as an in-person program. Various fruit crops were highlighted. This program was replaced with Fall Fruit Research Updates due to COVID. I was the lead person for this program.

6. Ohio Berry Workshop

This program was offered once at South Centers in cooperation with Brad Bergefurd. We featured popular fruits, such as blackberries, blueberries, and strawberries. Our program research assistants helped deliver this program.

7. Ohio Grape and Wine Conference

I have been a member of planning committee for this statewide conference. I also gave a few presentations over the years on grape production.

8. Southwest Fruit and Vegetable School

I was the coordinator of this reginal program for about 10 years while I was the extension educator/agent with OSU Extension in Clermont County.

9. Southwest Ohio Perennial Flower School

I started this program in Clermont County and ran it for from 1995 to 2007. At its peak year, we had 280 attendees who paid \$45 per person for this one-day conference. This program is still going.

10. Residential Landscaping Seminar

I started this program in Clermont County and ran it from 1995 to 2006.

11. Master Gardener Volunteer Program

I started the master garden volunteer program in Clermont County, ran it from 1995 to 2007 with the help of a part-time assistant. I was the master gardener program coordinator with OSU Extension in Delaware County from 2007 to 2011, trained new master gardeners and managed around 100 active master gardener volunteers.

EXTENSION BULLETINS

Gao, G., and Ron Perry. "Vineyard Establishment" chapter in the newly revised "Midwest Grape Production" to be published in 2024.

Gao, G.Y., R. Becker, M. Brown, M. Ellis, S. Prochaska, C. Welty, and R. Williams. 2017, 2010 and 2009. 'Midwest Home Fruit Production Guide". Ohio State University Extension Bulletin 940. 149 Pages. Columbus, Ohio. Gao, G.Y., "Soils, Fertilization, and Nutritional Disorders" in "Midwest Blueberry Production Guide" Edited by Nicole Ward Gauthier and Cheryl Kaiser, Department of Plant Pathology, University of Kentucky. 2013. Pp25-28. Available online at http://www2.ca.uky.edu/agc/pubs/ID/ID210/ID210.pdf

Gao, G.Y. 2007. Fruit Chapter in "BackPocket Gardener" edited by Jane. C. Martin, published by Ohio Landscape & Nursery Association. Columbus, OH.

Gao, G.Y., and B. Bergefurd. "Asian Vegetables," Ohio Vegetable Production Guide, Bulletin 672, Ohio State University Extension, Columbus, Ohio. Available online at http://ohioline.osu.edu/b672/index.html

Gao, G.Y., and B. Bergefurd. "Herbs," Ohio Vegetable Production Guide, Bulletin 672, Ohio State University Extension, Columbus, Ohio. Available online at http://ohioline.osu.edu/b672/index.html

EXTENSION FACT SHEETS

Gao, G.Y., M. R. Slaughter, E. Barrett, M.H. Rivera. 2023. [Peer Reviewed] Elderberry Production in Ohio. Location: Ohio State University Extension Fact Sheet, Columbus, Ohio, United States. Retrieved from https://ohioline.osu.edu/factsheet/anr-0110.

Gao, G.Y. and M. R. Slaughter. 2022. [Peer Reviewed] Blackberry Production Systems in Ohio. 2022. Location: Ohio State University Extension Fact Sheet, Columbus, Ohio, United States. Retrieved from at https://ohioline.osu.edu/factsheet/anr-0104.

Gao, G.Y., E. Brown, M.R. Slaughter and J. Fox. 2022. [Peer Reviewed] Direct Marketing of Fruit Crops to Ohio Wineries. Location: Ohio State University Extension Fact Sheet, Columbus, Ohio, United States. Retrieved from at https://ohioline.osu.edu/factsheet/hyg-1433.

Gao, G.Y., M. Ryan Slaughter, and Bradford S. Sherman. 2020. [Peer-Reviewed] Kiwifruit and Hardy Kiwi (Kiwiberries). Location: Ohio State University Extension Fact Sheet, Columbus, Ohio, United States. Retrieved from https://ohioline.osu.edu/factsheet/hyg-1426.

Slaughter, M. Ryan, **G.Y. Gao**, and Bradford S. Sherman. 2020. [Peer-Reviewed]. Growing Hardy Figs in Ohio. Location: Ohio State University Extension Fact Sheet, Columbus, Ohio, United States. Retrieved from https://ohioline.osu.edu/factsheet/hyg-1439.

Diedrick, K.A., **G.Y. Gao**, R.W. Mullen, M.E. Watson. 2017. [Peer-Reviewed] Guidelines for Choosing a Soil Analytical Lab. Location: Ohio State University Extension Fact Sheet, Columbus, Ohio, United States. Retrieved from http://ohioline.osu.edu/factsheet/HYG-113315%.

Gao, G.Y., R. Becker, M. Brown, M. Ellis, S. Prochaska, C. Welty, and R. Williams. 2017. [Peer-Reviewed] Midwest Home Fruit Production Guide. Location: Ohio State University Extension Bulletin 940, Columbus, Ohio, United States. Retrieved from http://estore.osu-extension.org/Midwest-Home-Fruit-Production-Guide-P267.aspx.

- Boggs, J.F. C. Meyer, **G.Y. Gao**, J.A. Chatfield. 2017. [Peer-Reviewed] Soil Testing is an Excellent Investment for Garden, Lawn, Landscape and Commercial Crops. Location: Ohio State University Extension Fact Sheet, Columbus, Ohio, United States. Retrieved from http://ohioline.osu.edu/factsheet/hyg-1132.
- **Gao, Gary Y.**, and Erik Draper. 2017. [Peer-Reviewed] Growing Blueberries in the Home Garden. Location: Ohio State University Extension Fact Sheet, Columbus, Ohio, United States. Retrieved from http://ohioline.osu.edu/factsheet/HYG-1422 70% Authorship: I wrote the original fact sheet in 2009 and made revisions in 2016 for publication in 2017.
- **Gao, G.Y.** 2017. [Peer-Reviewed] Growing Strawberries in the Home Garden. Location: Ohio State University Extension Fact Sheet, Columbus, Ohio, United States. Retrieved from http://ohioline.osu.edu/factsheet/hyg-1424.
- Gao, G.Y. 2017. [Peer-Reviewed] Growing Peaches and Nectarines in the Home Landscape. Location: Ohio State University Extension Fact Sheet, Columbus, Ohio, United States. Retrieved from http://ohioline.osu.edu/factsheet/hyg-1406.
- Gao, G.Y. 2017. [Peer-Reviewed] Growing Grapes in the Home Fruit Plantings. Location: Ohio State University Extension Fact Sheet, Columbus, Ohio, United States. Retrieved from http://ohioline.osu.edu/factsheet/hyg-1423
- Gao, G.Y. 2017. [Peer-Reviewed] Growing Apples in the Home Orchard. Location: Ohio State University Extension Fact Sheet, Columbus, Ohio, United States. Retrieved from http://ohioline.osu.edu/factsheet/hyg-1401.
- **Gao, Gary Y.**, Erik Draper, and Rory Lewandoski. 2017. [Peer-Reviewed] Raspberries for the Home Fruit Planting: Ohio State University Extension Fact Sheet, Columbus, Ohio, United States. Retrieved from http://ohioline.osu.edu/factsheet/hyg-1421.
- **Gao, G.Y.**, and M.V. Brown. 2017. [Peer-Reviewed] Pruning Blueberry Bushes in the Home Garden. Ohio State University Extension Fact Sheet, Columbus, Ohio, United States. Retrieved from http://ohioline.osu.edu/hyg-fact/1000/1429.html.
- **Gao, G.Y.**, M.V. Brown, and M.R. Slaughter. 2017. [Peer-Reviewed] Pruning Erect Blackberries in the Home Garden. Location: Ohio State University Extension Fact Sheet, Columbus, Ohio, United States. Retrieved from http://ohioline.osu.edu/factsheet/hyg-1431.
- **Gao, G.Y.**, B. Bergefurd, and Bob Precheur. 2017. [Peer-Reviewed] Growing Tomatoes in the Home Garden. Ohio State University Extension Fact Sheet, Columbus, Ohio, United States. Retrieved from https://ohioline.osu.edu/factsheet/HYG-1624.

Brown, M., and **G.Y. Gao**. 2017. [Peer-Reviewed] Pruning Backyard Grapevines in the First Three Years. Ohio State University Extension Fact Sheet, Columbus, Ohio, United States. Retrieved from https://ohioline.osu.edu/factsheet/HYG-1429-2004.

Brown, M., and **G.Y. Gao**. 2017. [Peer-Reviewed] Basic Principles of Pruning Backyard Grapevines. Ohio State University Extension Fact Sheet, Columbus, Ohio, United States. Retrieved from https://ohioline.osu.edu/factsheet/HYG-1428.

Gao, Y.G. 2013. [Peer-Reviewed] "Soils, Fertilization, and Nutritional Disorders." Chapter 10 in Midwest Blueberry Production Guide" co-authored by T. Barnes, C. Smigell, J. Strang, D. Wolfe, S. Wright, N. Ward Gauthier, P. Byers, K. Demchak, M. Ellis, G. Gao, Eric Hanson, R. Isaacs, D. Johnson, E. Stafne, and published by the University of Kentucky Extension Bulletin #ID-210, pages 25-29. Location: University of Kentucky, Lexington, Kentucky, United States. Retrieved from http://www2.ca.uky.edu/agc/pubs/ID/ID210/ID210.pdf.

Bordelon, B. P. et. al. 2018. [Peer-Reviewed] Midwest Fruit Pest Management Guide. Location: Purdue University, West Lafayette, Indiana, United States. Retrieved from https://ag.purdue.edu/hla/Hort/Documents/ID-465.pdf.

Bergefurd, B. and **G. Gao**. 2010. [Editor-Reviewed] "Asian Vegetables" in Ohio Vegetable Production Guide. Ohio State University Extension Bulletin, #672. The Ohio State University, Columbus, Ohio. p79-83.

Gao, G., and B. Bergefurd. 2010. [Editor-Reviewed] "Herbs" in Ohio Vegetable Production Guide. Ohio State University Extension Bulletin, #672. The Ohio State University, Columbus, Ohio. p163-176.

SPECIAL REPORTS (SELECTED)

Martin, J. A., J. Wright, B. Bloetscher, D.E. Dyke, E. A. Draper, P. J. Bennett, **G.Y. Gao**, J. F. Boggs, D. J. Shetlar, A. K. Stone, T. J. Malinich, and J. A. Chatfield. 2006. [Editor-Reviewed]. The BackPocket Gardener. Special Circular 197, Ohio Agricultural Research and Development Center in Partnership with Ohio State University Extension and the OSU Extension Centers at Wooster and Piketon. p32-39. website: https://kb.osu.edu/bitstream/handle/1811/6182/sc197.pdf?sequence=1&isAllowed=y

Chatfield, J.A., J. F. Boggs, **G.Y. Gao**, E. Draper, K. L. Smith, B. G. Ludwig, and S. R. Baertsche. 2005 [Editor-Reviewed]. Teamwork Is Its Own Reward. Special Circular 195, Ohio Agricultural Research and Development Center in Partnership with Ohio State University Extension and the OSU Extension Centers at Wooster and Piketon. p27-33.

Website: https://kb.osu.edu/handle/1811/6102

Chatfield, J.A., N.A. Taylor, E. A. Draper, A. K. Stone, **G.Y. Gao**, D. J. Goerig, J.F. Boggs, C.E. Young, and D.E. Dyke. 2005. [Editor-Reviewed]. Summary of Diseases of Landscape Plants in Ohio: 2004. 2005. Special Circular 195, Ohio Agricultural Research and Development Center in Partnership with Ohio State

University Extension and the OSU Extension Centers at Wooster and Piketon. p60-70. Website: https://kb.osu.edu/handle/1811/6102

Bennett, P.J. and **G.Y. Gao**. 2005. [Editor-Reviewed]. Useful Horticulture References for Green Industry Professionals. Special Circular 195, Ohio Agricultural Research and Development Center in Partnership with Ohio State University Extension and the OSU Extension Centers at Wooster and Piketon. p224-225. Website: https://kb.osu.edu/handle/1811/6102

Boggs, J.F., C.E Young, D. J. Shetlar, B. Bloetscher, A.K. Stone, D.J. Goerig, T.J. Malinich, D.E. Dyke, E.A. Draper, P.J. Bennett, **G.Y. Gao**, and J.A. Chatfield. 2004. [Editor-Reviewed]. Insect and Mite Activity Noted in Ohio Nurseries 33 and Landscapes: 2003. Ornamental Plants: Annual Reports and Research Reviews, 2003. Special Circular 193, Ohio Agricultural Research and Development Center in Partnership with Ohio State University Extension. P33-53. Website: http://hdl.handle.net/1811/71940

Chatfield, J.A., N.A. Taylor, E.A. Draper, D.E. Dyke, **G.Y. Gao**, and J.F. Boggs. 2004. [Editor-Reviewed]. Infectious Disease Problems of Ornamental Plants in Ohio: 2003. Ornamental Plants: Annual Reports and Research Reviews, 2003. Special Circular 193, Ohio Agricultural Research and Development Center in Partnership with Ohio State University Extension. p54-61. Website: http://hdl.handle.net/1811/71940

Gao, G.Y. and P.J. Bennett. 2004. [Editor-Reviewed]. Useful Horticultural References for Green Industry Professionals. Ornamental Plants: Annual Reports and Research Reviews, 2003. Special Circular 193, Ohio Agricultural Research and Development Center in Partnership with Ohio State University Extension. p194-196.

Website: http://hdl.handle.net/1811/71940

Gao, G.Y., J.J. Smith, J.A. Chatfield, J.F. Boggs, E.A. Draper, and H. Mathers. 2003. [Editor-Reviewed]. Key Results of the 2001 Ohio Green Industry Survey. Ornamental Plants - Annual Reports and Research Reviews: 2002. Special Circular 189, Ohio Agricultural Research and Development Center in Partnership with Ohio State University Extension. p139-144

Gao, G.Y., M.E. Watson, J.F. Boggs, and J.A. Chatfield. 2003. [Editor-Reviewed]. Choosing Soil Testing Labs. Ornamental Plants - Annual Reports and Research Reviews: 2002. Special Circular 189, Ohio Agricultural Research and Development Center in Partnership with Ohio State University Extension. p151-156

Gao, G.Y. and P.J. Bennett. 2003. [Editor-Reviewed]. Top Horticultural References for a Green Industry Professional's Library. Ornamental Plants - Annual Reports and Research Reviews: 2002. Special Circular 189, Ohio Agricultural Research and Development Center in Partnership with Ohio State University Extension. p157-161.

RESEARCH

Funded Projects:

a) Funded Research, including Contracts and Clinical Trials, on Which the Candidate is or has been the Principal Investigator

10/2023 - 9/2025. Project Title: Expanding Raspberry Production Options for Acreage Expansion, Long-

term Sustainability, Risk Mitigation, and Season Extension.

Total Award): \$95,000

Funding Agency: USDA/Ohio Department Specialty Crop Block Grant Program

Role: Principal Investigator (100%)

7/2022 - 6/2023. Project Title: Viticulture Extension.

Total Award): \$130,000

Funding Agency: Ohio Grape Industry Program

Role: Principal Investigator (15%)

10/2021 - 9/2023. Project Title: Long Cane Raspberry Production System for Acreage Expansion, Farm

Diversification, Risk Mitigation and Season Extension.

Total Award): \$95,000

Funding Agency: USDA/Ohio Department Specialty Crop Block Grant Program

Role: Principal Investigator (100%)

7/2021 - 6/2022. Project Title: Viticulture Extension.

Total Award): \$129,500

Funding Agency: Ohio Grape Industry Program

Role: Principal Investigator

7/2020 - 6/2021. Project Title: Viticulture Extension.

Total Award): \$115,000

Funding Agency: Ohio Grape Industry Program

Role: Principal Investigator

10/2017 - 9/2020. Project Title: New Bramble Cultivars and Innovative Production Systems, Hardy Figs

and Hardy Kiwis for Season Extension, Farm Diversification, and Healthy Ohio.

Total Award): \$89,660

Funding Agency: USDA/Ohio Department Specialty Crop Block Grant Program

Role: Principal Investigator (100%)

7/2017 - 6/2018. Viticulture Research and Extension from OSU South Centers. Ohio Grape Industries

Program.

Research Grant. 4/2017

Grant/Contract Number: GRT00027470

Total Award): \$17,637 Role: Principal Investigator

11/2016 - 9/2018. Grafted "Trees" and New Cultivars of Blueberries for Acreage Expansion and Farm

Diversification. U.S. Department of Agriculture.

Total Award): \$107,814 Research Grant. 5/2016

Grant/Contract Number: 60055559

Role: Principal Investigator

7/2016 - 6/2017. Viticulture Research and Extension from OSU South Centers. Ohio Grape Industries

Program. By Year) Research Grant. 4/2016

Grant/Contract Number: 60055952

Total Award): \$17,637 Role: Principal Investigator

10/2015 - 9/2018. Container production and "chemigation" of berries for season extension and risk

mitigation."

Total Award): \$146,730

Funding Agency: USDA/Ohio Department Specialty Crop Block Grant Program

Funding Period: October 1, 2015 – September 30, 2017

Role: Sole Principal Investigator

7/2015 - 6/2016. Viticulture Research and Extension from OSU South Centers. Ohio Grape Industries

Program. By Year) Research Grant. 4/2015 Total Award): \$17,997

Grant/Contract Number: 60051408 Role: Sole Principal Investigator

10/2014 - 10/2016. Cultivar evaluation, expansion, season extension and grower support of new and

existing super berry production. U.S. Department of Agriculture.

Total Award): \$50,000 Research Grant. 4/2014

Grant/Contract Number: AGR-SCBG-2014-12

Role: Principal Investigator.

7/2014 - 6/2015. Viticulture Research and Extension from OSU South Centers. Ohio Grape Industries

Program. By Year) Research Grant. 4/2014 Total Award): \$17,997

Grant/Contract Number: CSP900113

Role: Principal Investigator

7/2013 - 6/2014. Extension Services (PO0000006546): PI Gao, OSU South Centers extension and

outreach Ohio grape industries. Ohio Grape Industries Program.

Total Award): \$18,562

Grant/Contract Number: GRT00027470

Role: Principal Investigator

10/2012 - 9/2014. Project Title: "Expansion, Season Extension and Diversification of Bramble

Production."

Total Award: \$50,000

Funding Agency: Ohio Department of Agriculture/USDA Specialty Crop Block Grant

Role: Principal Investigator

7/2012 - 6/2013. Extension Services (PO0000006546): PI Gao, OSU South Centers extension and outreach Ohio grape industries. Ohio Grape Industries Program.

Total Award): \$18,562

Grant/Contract Number: GRT00027470

Role: Principal Investigator

10/2011 - 9/2013. Project Title: "Expansion, Revitalization and Season Extension of Blueberry

Production in Ohio." Funded Amount: \$60,000

Funding Agency: USDA/Ohio Department Specialty Crop Block Grant Program

Role: Principal Investigator (90%), Brad Bergefurd (10%)

7/2011 - 6/2012. Viticulture research and outreach from OSU South Centers. OH, Grape Industries

Committee.

Total Award): \$18,562 Research Contract. 5/2011

Grant/Contract Number: GRT00024995

Role: Principal Investigator

2012. Project Title: "Evaluation of Cold-Hardy Cultivars and Season-Extension Methods of Blackberries

for Improved Profitability." Funded Amount: \$4,000

Funding Agency: Ohio Vegetable and Small Fruit Research and Development Fund

Funding Period: March - December 2012

Role: Principal Investigator

b) Funded Research, including Contracts and Clinical Trials, on which the candidate is or has been the Co-Investigator

9/15/2023 – 9/14/2027. Development and validation of sustainable aquaponics model systems

to enhance resiliency of urban, indoor, and emerging food systems Funding Source: USDA National Institute of Food and Agriculture

Principal Investigator: Dr. Hanping Wang

Co-PI: Dr. Yu "Gary" Gao

8/1/2022 – 7/81/2025. Impacts of agricultural systems on the dynamics and functions of soil and

tomato-associated microbiome and productivity

Funding Source: USDA National Institute of Food and Agriculture

Principal Investigator: Dr. Ye "Summer" Xia Co-PIs: Drs. Rattan Lal, Richard Dick, and Gao

Total Amount: \$750,000

Allocated Amount (Gao): \$52,785

9/2020 - 8/2023. Restocking the IPM toolbox to meet insect management challenges in highbush

blueberry.

Funding Source: USDA National Institute of Food and Agriculture Principal Investigator: Dr. Rufus Isaacs, Michigan State University

Subaward Amount (Gao): \$15,000

8/2018 - 8/2020. Systematic Investigation of Biological, Chemical, Physiological Mechanisms and Practical Applications of Valent Endomycorrhizal Fungi Products in Tomatoes for Higher Yield and Quality.

Principle Investigator: Dr. Ye "Summer" Xia

Co-PI: Dr. Y. "Gary" Gao. (20%) Funded amount: \$50,000 Research Grant by Valent USA

1/2016 - 7/2021. Advancing sprayer technologies for specialty crops - from components to sophisticated systems. U.S. Department of Agriculture.

Total Award): \$3,672,482 Research Contract. 4/2015

Grant/Contract Number: 60053740

Explanation of Role: I oversaw the testing the "Smart Sprayer" in a commercial vineyard, a blueberry farm, and a raspberry farm in Ohio. I am also the Co-PI of this multi-million-dollar USDA-SCRI grant. Our

award amount: \$139,947

7/2015 - 6/2016. Gao, Scurlock) Entomology - Sustainable Insect Management for Ohio Grape

Production. Ohio Grape Industries Program.

Total Award): \$25,214 Research Grant. 4/2015

Grant/Contract Number: 60050523

Explanation of Role: I developed the concept, wrote, and submitted the proposal with the help of Dave

Scurlock.

7/2014 - 6/2015. Gao, Scurlock) PO0000007903 Entomology - Sustainable Insect Management for Ohio Grape Production. Ohio Grape Industries Program.

Total Award): \$25,214

Grant/Contract Number: GRT00027470 / 60047351

Explanation of Role: I developed the concept, wrote, and submitted the proposal with the help of Dave

Scurlock.

7/2013 - 6/2014. Viticulture Research, Entomology (PO0000007110): PI Gao and Scurlock, OSU South Centers entomology, extension, and outreach Ohio grape industries. Ohio Grape Industries Committee.

Total Award): \$29,214

Grant/Contract Number: GRT00027470

Explanation of Role: I wrote the proposal, designed the insect management experiments, delivered

educational programs, and made grower visits.

Description: I wrote the proposal, designed experiments, and wrote reports.

9/2012 - 8/2015. Sustainable management of grape root borer in commercial vineyards. U.S.

Department of Agriculture. Total Award): 199,791

Grant/Contract Number: GRT00028085

Explanation of Role: I developed and wrote the extension and outreach portion of this proposal and led the extension and outreach efforts of this project. (PI: Grewal, Parwinder S; Co-PIs: Vickner, Steven Shawn; Zhu, Heping). (5% contribution)

10/2011 - 10/2013. Expansion, Revitalization and Season Extension of Blueberry Production in Ohio

Funded Amount: \$60,000

Funding Agency: USDA/Ohio Department Specialty Crop Block Grant Program

Role: Gao, Y. G., Principal Investigator (90%)

10/2012 – 6/2014. Expansion, Season Extension and Diversification of Bramble Production

Funded Amount: \$55,000

Funding Agency: Ohio Department of Agriculture/USDA Specialty Crop Block Grant

Role: Gao, Y. G., Principal Investigator (100%)

9/2012 - 8/2014. Sustainable Management of Grape Root Borer in Commercial Vineyards

Funded Amount: \$199,791

Funding Agency: National Institute of Food & Agriculture

Role: Gao, Y. G., Co-Principal Investigators (20%) (PI: Grewal, Parwinder S; Co-PIs: Vickner, Steven

Shawn; Zhu, Heping).

7/2012 – 6/2014. Viticulture Research and Outreach Program from OSU South Center

Funded Amount: \$31,557

Funding Agency: Ohio Grape Industries Program Role: Gao, Y. G., Principal Investigator (100%)

7/2012 – 6/2014. Project Title: "Entomology Research and Extension Programs for Ohio Grape

Industries"

Funded Amount: \$35,642

Funding Agency: Ohio Grape Industries Program

Role: Gao, Y. G., Principal Investigator (80%) and Dave Scurlock, Co-PI (20%).

3-12/2012. Project Title: "Evaluation of Cold-Hardy Cultivars and Season-Extension Methods of

Blackberries for Improved Profitability."

Funded Amount: \$4,000

Funding Agency: Ohio Vegetable and Small Fruit Research and Development Fund

Role: Gao, Y. G., Principal Investigator (100%)

7/2011 - 6/2012. "Viticulture Research and Outreach from OSU South Centers."

Role: Principal Investigator Funded Amount: \$18,562

Source of Funding: Ohio Grape Industries Program.

10/2012 - 9/2014. Revitalization, Expansion, and Season Extension of Blueberry Production in Ohio.

Role: Gao, Y.G., Principal Investigator

Funded Amount: \$60,000.

Source of Funding: Ohio Department of Agriculture and UADA.

3/2012 - 12/2012 Evaluation of Cold-Hardy Cultivars and Season-Extension Methods of Blackberries for

Improved Profitability
Role: Principal Investigator
Funded Amount: \$4,000

Funding Source: Ohio Vegetable and Small Fruit Research and Development Program.

c) Proposals for Research Funding that are Pending or were Submitted but not Funded

09/30/2024 – 09/29/2027. Building on Sweet (Corn) Success to Improve Laser Scarecrows for Bird Damage Control in Small Fruit Production. USDA – Multi-State Specialty Crop Block Grant. (USD 1,000,000 Total Award) Pending

PI: Dr. Rebecca Brown, University of Rhode Island

Co-PI: Dr. Gary Gao, (\$100,000)

2020. Gao, Gary Y. Co-Co-Principal Investigator. "Soilless Solutions: Formulating long-term sustainable substrates using blueberry and citrus as model crops while establishing a knowledge exchange and interactive community for specialty crop producers" led by Drs. Jim Owen and James Altland of USDA in Wooster, Ohio. Not Funded

Funding Source: USDA-SCRI Standard Research and Extension Project (SREP)

Total Amount Requested: \$4,000,000 Proposed Allocation for Gao: \$320,000

2018. Systemic investigation of the mechanism and application of beneficial microbes in enhancing tomato plant yield and quality. Dr. Ye "Summer" Xia and Dr. Y. "Gary" Gao. Requested amount: \$25,000. The proposal was submitted to OARDC SEEDs partnership program in February 2018. Not funded.

2018. Enhancing the Health Promotion Phytochemicals in Tomatoes with Beneficial Microbes for Healthy Americans and Stronger Economy." Ye "Summer" Xia, Ken Riedl, Josh Blakeslee, and Y. "Gary" Gao.

Requested amount: \$25,000. The proposal was submitted to the OSU's Food for Health Program. Not funded.

2016. Understanding metabolomic and microbiome responses to electron beam processing for enhancing blueberry quality and reducing pesticide use. Suresh Pillai, Wei Qiang Yang and Y. Gary Gao. Requested amount: \$2,000,000. The proposal was submitted to USDA and was not funded.

2015. Non-Thermal Pathogen Inactivation Technologies for Berries to Ensure Safety, Quality, and Consumer Acceptability. Drs. Gary Gao, Jianrong Li, Janice Harte, Doris, D'Souza, Eva Almenar, Ynes Ortega, Hao Feng, Kristina Mena, and Suresh Pillai.

Requested amount: \$4,000,000. The proposal was submitted to USDA and was not funded.

2015. An integrated approach to control foodborne bacterial, viral, and fungal pathogens in high-risk foods using innovative non-thermal processing technologies. Drs. Jianrong Li, Y. Gary Gao, Lynn Knipe, Xiaoming He, Gireesh Rajashekara, Steve Vickner, X.J. Meng, K.T. Tsen, Changqing Wu, Haiqiang Chen, Scott Manfort, Stephanie Karst, and Robert Uribe.

Requested amount: \$4,000,000. The proposal was submitted to USDA and was not funded.

2014. "Combination of Multiple Non-Thermal Microbial Control Technologies for Ensuring Safety, Quality and Nutritional Content of Berries, the Antioxidant Superfruit Group." Drs. Gary Gao, Jianrong Ll, Janice Harte, Doris, D'Souza, Eva Almenar, Ynes Ortega, Hao Feng, and Kristina Mena, and Suresh Pillai. Requested amount: \$4,000,000. The proposal was submitted to USDA and was not funded.

2012. Exploring Packaging as A Novel Technology for Reducing Norovirus in Fresh Produce. Eva Almenar, Jianrong Li, Yu "Gary" Gao and Janice Harte.

Requested Amount: \$1,000,000. The proposal was submitted to USDA and was not funded.

d) Funded Training Grants on Which the Candidate is or has been the Equivalent of the Principal Investigator

9/2018. 2018 Cochran Fellowship Program. "High Value Horticultural Crop Development and Trade in Moldova." U.S. Department of Agriculture – Foreign Agricultural Service (\$51,873). Training Grant.

10/2016. 2016 U.S.-China Scientific Cooperative Exchange Program. "Farmland Protection, Quality, and Improvement." U.S. Department of Agriculture – Foreign Agricultural Service (\$39,904). Training Grant.

8/2015 - 9/2015. 2015 U.S.-China Scientific Cooperative Exchange Program. "Support and Management of Small Family Farms in the U.S.". U.S. Department of Agriculture – Foreign Agricultural Service (\$34,000). Training Grant.

6/2014 - 9/2014. 2014 U.S.-China Scientific Cooperative Exchange Program. "U.S. Agricultural Extension System." U.S. Department of Agriculture – Foreign Agricultural Service (\$27,067). Training Grant.

7/2014 - 8/2014. USDA - Chinese Ministry of Agriculture "Scientific Cooperation Exchange Program." U.S. Department of Agriculture. Total Award) Professional Development (Valued at \$20,000). 3/2014 Grant/Contract Number: NA

e) Proposals for Training Grants that are Pending or were Submitted but not Funded Not Funded

9/2017. 2017 Cochran Fellowship Program. "High Value Horticultural Crop Development and Trade in Moldova." U.S. Department of Agriculture – Foreign Agricultural Service (\$51,873). Training Grant.

Authors: Ingle, B. and G.Y. Gao, Co-PI, and Leader Trainer.

Agency: Foreign Agricultural Services, USDA

Amount: \$47,873

The project was initially funded in 2017 and was later canceled due to budget cut at the State Department in 2017 by then new President Trump.

f) Any other Funding Received for the Candidate's Academic work

2016 – OARDC Equipment Grant. \$40,000 toward the purchase of a UHPLC-Mass spectrometer system. 2018 – \$5,000 donation to my research project by AquaYield Inc., Salt Lake City, Utah.

PUBLICATIONS

Book Chapters

Strik, B.; Takeda, F.; **Gao, G.** 2017. [Peer reviewed]. "Pruning and Training." Chapter 12 in the book titled "Blackberries and their Hybrids" published by CABI and edited by Hall, H.K. and R.C. Funt. Wallingford, England and Boston, MA: CABI. Pages 169 - 201 Retrieved from: https://www.cabi.org/bookshop/book/9781780646688.

Gao, G.Y., and J.A. Chatfield. 2011. [Editor reviewed]. "Plant Growth and Development." (Publication Committee) (Eds.), Chapter 4 in "Core Training Manual the Certified Nursery Technician Program." Pages 31-40. Ohio Nursery & Landscape Association, Columbus, United States, Ohio.

Gao, G.Y. 2007. [Editor Reviewed]. "Fruits." Chapter 8 in "The BackPocket Gardener" edited by Jane Martin and published by Ohio Nursery & Landscape Association, Westerville, Ohio. p107-116.

Peer Reviewed Journal Articles

Yang P, Zhao Z, Fan J, Liang Y, Bernier MC, **Gao Y.G.**, Zhao L, Opiyo SO, Xia Y. Bacillus proteolyticus OSUB18 triggers induced systemic resistance against bacterial and fungal pathogens in *Arabidopsis*. Front Plant Sci. 2023 Jan 23; 14:1078100. doi: 10.3389/fpls.2023.1078100. PMID: 36755698; PMCID: PMC9900001.

Zhang L, Han X, Zhang S, Du J, Zhang J, **Gao Y.G.**, Wang P, Mu X. A Systematic Profiling of the Volatile Compounds in 53 *Cerasus humilis* Genotypes Using Headspace Solid-Phase Microextraction and Gas Chromatography-Mass Spectrometry. Horticulturae. 2023; 9(7):806. https://doi.org/10.3390/horticulturae9070806

Yang P, Zhao L, **Gao Y.G.**, Xia Y. Detection, Diagnosis, and Preventive Management of the Bacterial Plant Pathogen *Pseudomonas syringae*. Plants. 2023; 12(9):1765. https://doi.org/10.3390/plants12091765

Liu, Yang, Xuguang Zhang, Zitong Ma, Nalin Dong, Dongbo Xie, Rui Li, Douglas M. Johnston, **Yu Gary Gao**, Yonghua Li & Yakai Lei (2023) Developing a more accurate method for individual plant segmentation of urban tree and shrub communities using LiDAR technology, Landscape Research, 48:3, 313-330, DOI: 10.1080/01426397.2022.2144813

Liu, Yang, Xuguang Zhang, Zitong Ma, Nalin Dong, Dongbo Xie, Rui Li, Douglas M. Johnston, **Yu Gary Gao**, Yonghua Li & Yakai Lei (2022) Developing a more accurate method for individual plant segmentation of urban tree and shrub communities using LiDAR technology, Landscape Research, DOI: 10.1080/01426397.2022.2144813

Ren, Yulin, Tyler Frank, Gunnar Meyer, Jizhou Lei, Jessica R. Grebenc, Ryan Slaughter, **Yu G. Gao**, and A. Douglas Kinghorn. 2022. "Potential Benefits of Black Chokeberry (Aronia melanocarpa) Fruits and Their Constituents in Improving Human Health" Molecules 27, no. 22: 7823. https://doi.org/10.3390/molecules27227823

Duan, Yanbo, **Yu Gary Gao**, Yusen Zhang, Huawei Li, Zhonghui Li, Ziying Zhou, Guohang Tian, and Yakai Lei. 2022. ""The 20 July 2021 Major Flood Event" in Greater Zhengzhou, China: A Case Study of Flooding Severity and Landscape Characteristics" Land 11, no. 11: 1921. https://doi.org/10.3390/land11111921

- Zhao, Zhenzhen, Jiangbo Fan, **Yu G. Gao**, Zonghua Wang, Piao Yang, Yinping Liang, Stephen Opiyo, and Ye Xia (2022). Arabidopsis Plasma Membrane ATPase AHA5 is Negatively Involved in PAMP Triggered Immunity, International Journal of Molecular Sciences. DOI: 10.3390/ijms23073857
- Han, Hongyan, Xiaopeng Mu, Pengfei Wang, Zewen Wang, Hongbo Fu, **Yu Gary Gao**, Junjie Du. (2021) Identification of LecRLK gene family in Cerasus humilis through genomic-transcriptomic data mining and expression analyses. PLOS ONE 16(7): e0254535. https://doi.org/10.1371/journal.pone.0254535
- Ji W, **Gao G**, Wei J. Potential Global Distribution of Daktulosphaira vitifoliae under Climate Change Based on MaxEnt. Insects. 2021 Apr 13;12(4):347. doi: 10.3390/insects12040347. PMID: 33924706; PMCID: PMC8069807.
- Heba S. El-Desouky, Kandakhar R. Islam, Brad Bergefurd, Gary Gao, Thomas Harker, Hosny Abd-El-Dayem, Faten Ismail, Mohamed Mady & Reda M. Y. Zewail (2021) Nano iron fertilization significantly increases tomato yield by increasing plants' vegetable growth and photosynthetic efficiency, Journal of Plant Nutrition, 44:11, 1649-1663, DOI: 10.1080/01904167.2021.1871749
- Zhou, Y., Y. Gary Gao, M. Monica Giusti. 2020. Accumulation of Anthocyanins and Other Phytochemicals in American Elderberry Cultivars during Fruit Ripening and its Impact on Color Expression. Plants 2020, 9(12), 1721; https://doi.org/10.3390/plants9121721
- Wang, P., X. Mu, **Y. Gary. Gao**, J. Zhang, J. Du. 2020. Successful induction and the systematic characterization of tetraploids in cerasus humilis for subsequent breeding. Scientia Horticulturae Volume 265, 30 April 2020, 109216. https://doi.org/10.1016/j.scienta.2020.109216
- Xia, Y., Mohammad Radhi Sahib, Amna Amna, Stephen Obol Opiyo, Zhenzhen Zhao, **Y. Gary Gao**, 2019. Culturable endophytic fungal communities associated with plants in organic and conventional farming systems and their effects on plant growth. Scientific Reports. 9: 1669. | https://doi.org/10.1038/s41598-018-38230-x
- Ziv, C., Z. Zhao, **Y. Gary Gao**, Y. Xia. 2018. Multifunctional Roles of Plant Cuticle During Plant-Pathogen Interactions. Frontiers in Plant Science 9:1-8. DOI:10.3389/fpls.2018.01088
- Lei, Y., Y. Duan, D. He, X. Zhang, L. Chen, Y. Li, **Y.G. Gao**, G. Tian, J. Zheng. 2018. Effects of Urban Greenspace Patterns on Particulate Matter Pollution in Metropolitan Zhengzhou in Henan, China. Atmosphere 9(199): 1-15. https://doi.org/10.3390/atmos9050199
- Mu X., P. Wang, J. Du, **Y.G. Gao**, J. Zhang. 2018. Comparison of fruit organic acids and metabolism related gene expression between Cerasus humilis (Bge.) Sok and Cerasus glandulosa (Thunb.) Lois. PLoS ONE 13(4): e0196537. https://doi.org/10.1371/journal.pone.0196537
- Mu X., P. Wang, J. Du, **Y.G. Gao**, J. Zhang. 2018. The chloroplast genome of Cerasus humilis: Genomic characterization and phylogenetic analysis. PLoS ONE 13(4): e0196473. https://doi.org/10.1371/journal.pone.0196473

- Yang, Z, H. Chambers, E. DiCaprio, **G. Gao**, J. Li. 2018. Internalization and dissemination of human norovirus and Tulane virus in fresh produce is plant dependent. Food Microbiology, 69 (2018) 25-32. http://doi:10.1016/j.fm.2017.07.015
- **Gao, G.Y.**, L. Zhou, T. Harker, W. Lewis, R. Slaughter, K.R. Islam, Y. Xia, T. Worley. 2017. Effects of High Tunnel and Tile Drainage on the Yield and Ripening Time of Mature Northern Highbush Blueberries in Ohio. Journal of the NACAA. 10(2). Retrieved from: https://www.nacaa.com/journal/index.php?jid=780.
- **Gao, Y.G.**, D. Scurlock, R. Slaughter, T. Worley. 2017. A Comprehensive Trapping Study of Spotted Wing Drosophila (Drosophila Suzukii) Among Fruit Plantings and a Woodlot at a Research and Extension Center Near Piketon, Ohio. Journal of the NACAA, 10(1). Retrieved from: https://www.nacaa.com/journal/index.php?jid=715.
- Qin, D., L. Zhao, Y. G, Gao, F. Li, S. Li, J. Huo, S. Lou, P. Liu. 2017. Effects of fruit thinning on ascorbate-glutathione cycle metabolism in black currants (Ribes nigrum L.). Journal of Forestry Research. 28(5): 903-908. http://doi:10.1007/s11676-016-0340-0
- Qin, D, H. Wang, C. Zhang, Z. Yu, **Y.G. Gao**, F. Xie, N. Hung, J. Huo. 2017. Effects of GA3 and ABA on the respiratory pathways during the secondary bud burst in black currants. Journal of Forestry Research. 28(4): 705-712. http://doi:10.1007/s11676-016-0354-7
- Araud, E., E. DiCaprio, Y. Ma, F. Lou, **Y. Gao**, D. Kingsley, J.H. Hughes, J. Li. 2016. Thermal Inactivation of Enteric Viruses and Bioaccumulation of Enteric Foodborne Viruses in Live Oysters (Crassostrea virginica). Applied and Environmental Microbiology. 82(7): 2086–2099. http://doi:10.1128/AEM.03573-15
- Chatfield, J.A., J.F. Boggs, **G. Gao**, E.A. Draper, K. L. Smith, B. G. Ludwig, S. R. Baertsche. 2004. Teams Change Everything. Journal of Extension. 42(2): Feature Article. Retrieved online at https://joe.org/joe/2004april/a6.php.
- **Gao, G.Y.,** J.A. Chatfield, E.A. Draper, J.F. Boggs. 2001. Ohio State University Extension Nursery Landscape, and Turf Team: Teamwork at its best. HortTechnology. July/Sept 2001. v. 11 (3) p. 469-471.
- Gao, G.Y. 2000. Brambles Production, Management, and Marketing: An Ohio State University Extension Bulletin. Journal of Extension, Vol. 38(5). Online Journal. Web address: http://www.joe.org/joe/2000october/tt3.php
- **Gao, G.Y.** 1999. Specialty and Minor Crops Handbook: Reference for Agricultural Extension Professionals and Small-Scale Farmers. Journal of Extension. Vol. 37(6). Online Journal. http://www.joe.org/joe/1999december/tt3.php
- **Gao, G.Y.**, and B. Bergefurd. 1998. Culinary Herbs as Alternative Cash Crops for Farmers in Southern Ohio. Journal of Extension. Vol. 36, No. 6. Online Journal. Web address: http://www.joe.org/joe/1998december/rb1.php
- **Gao, G.Y.**, and G.A. Cahoon. 1995. High performance liquid chromatographic analysis of anthocyanins in the red seedless table grape Reliance. American journal of enology and viticulture. Am. J. Enol. Vitic. 1995. v. 46 (3) p. 339-345.

- **Gao, G.Y.**, and K. Dupree, and S. McKee. 1995. Rehabilitating Misdemeanor Offenders at County Jail Through Extension Education. Journal of Extension. Vol. 33, No. 6. December 1995.
- **Gao, G.Y.**, W. Bumgarner, and A. Buettner. 1995. Master Gardener and Youth Gardeners Raise Vegetables to Help Needy. Journal of Extension. Vol. 33, No. 5. October 1995.
- **Gao, G.Y.**, and G.A. Cahoon. 1994. Cluster Shading Effects on Fruit Quality, Fruit Skin Color, Total Anthocyanin Content, Content of Individual Anthocyanins, and Percentages of Individual Anthocyanins of Berry Skin in Reliance Grape (Vitis Hybrid). Vitis 33, 205-209.
- **Gao, G.Y.** and G. A. Cahoon. 1991. Nitrogen Fertilization and Daminozide Effects on Growth, Yield and Quality of Concord Grapes, Vitis labruscana B. Commun. Soil Sci. Plant Anal. 22(15&16):1547-1557.
- **Gao, Y.,** and G. A. Cahoon. 1990. Arginine in Concord Grape as Affected by High Soil Nitrogen Fertilization and Daminozide. J. Plant Nutr. 13(12):1479-1488.

Editor Reviewed Trade Magazine Articles

Gao, G. 2023. The Quest for Better Fruit: Why Growers Need to Start from the Ground up. April 2023. American Fruit Grower Magazine and available online at

https://www.growingproduce.com/fruits/berries/the-quest-for-better-fruit-why-growers-need-to-start-from-the-ground-up/

Gao, G. 2023. Good Save: Peach Growers in Ohio Work Hard to Overcome Adversity. August 2023. American Fruit Grower Magazine and available online at

https://www.growingproduce.com/fruits/stone-fruit/good-save-peach-growers-in-ohio-work-hard-to-overcome-adversity/

Gao, G. 2023. 4 Elements That Are Key in Making 'Best of Ohio' White Wine. September 2023. American Fruit Grower Magazine and available online at https://www.growingproduce.com/fruits/grapes/4-elements-that-are-key-in-making-best-of-ohio-white-wine/

Gao, G. 2022. Secrets To Success of Growing Peaches in Ohio. August 2022. American Fruit Grower Magazine and also available online at https://www.growingproduce.com/fruits/stone-fruit/secrets-to-success-of-growing-peaches-in-ohio/

- Gao, G. 2021. "Ways To Raise Your Game on Fall Care of Blackberries." American Fruit Grower.
- Gao, G. 2021. What You Can Do to Protect Your Grapes from Herbicide Drift Damage. American Fruit Grower.
- Gao, G. 2021. "Learn Tricks of the Trade in Cold Climate Grape Growing." American Fruit Grower.
- Gao, G. 2021. "Active Frost and Freeze Protection for Berry Crops." American Fruit Grower.
- Gao, G. 2020. "Spotted Lanternfly a Major Threat to Fruit Crops in the Midwest?" American Fruit Grower.
- Gao, G. 2020. "Ways to Keep a Lid on Explosive Weed Problems in Berries." American Fruit Grower.
- Gao, G. 2020. "Why Your U-Pick Needs a Makeover Now." American Fruit Grower.
- Gao, G. 2020. "Where Berry Growers Can Look for a Mechanical Edge." American Fruit Grower
- Gao, G. 2019. "Five Cool Tips to Winterize Your Orchard Sprayers." American Fruit Grower.
- Gao, G. 2019. "Has Protected Agriculture Become a Necessity for Berry Growing?" American Fruit Grower.
- Gao, G. 2019. "Is Container Production a Good Fit for Your Berries?" American Fruit Grower.
- Gao, G. 2018. "Making alternative "super fruits" work for your farm may take careful selection, diversification, and value-added products." American Fruit Grower.

- Gao, G. "Organic berry production could be a good way to stay ahead of competition and generate more profit for fruit growers." American Fruit Grower.
- Gao. G. "Pruning Pointers for Dormant Care of Berries." American Fruit Grower. March 2017. 137(3):32,34.
- Gao, G. "Proper irrigation: Water A Must for Berry Crops." American Fruit Grower. July 2017. 137(7):24-25.
- Gao, G. "Pest and Disease Diagnosis 101 In Berries." American Fruit Grower. November 2016. 136(11): 17-18.
- Gao, G. "Bird Damage Plagues Most Fruit Growers." 2016. American Fruit Grower, August 2016. 136(8):20,22.
- Gao, G. "Mechanization in the Berry Patch Can Make Your Job Easier." 2016. American Fruit Grower, April 2016. 136(4):48-49
- Gao, G. "Timely Tips for A Healthy and Productive Berry Patch." American Fruit Grower, Nov 2015. 135(11): 14-15.
- Gao, G. "Getting Right to the Core of Nutrient Management for Berry Crops." May 2015. American Fruit Grower. 135(5): 34,36.
- Gao, G. "Proper dormant pruning increases berry size and improves overall health of blackberry and raspberry plants." Feb 2015. American Fruit Grower. 135(2):38-39
- Gao, G. "Top Ten Things That Bramble Growers Need to Know to Get Ready for 2015." American Fruit Grower, Nov/Dec 2014. 134(10):34-36.
- Draper, E., J. Chatfield, G. Gao. 2012. Basic Botany for Horticulturists. American Nurseryman. August 12, 2012. p14-16.
- Gao, Gary Y. (2011). Diagnosing Mineral Disorders in the Landscape. American Nurseryman. Oct 2011. 211(10):6-9.

SERVICE

1) List of Editorships or Service as an Editorial Reviewer or Board Member for Journals, University Presses, or Other Learned Publications

Peer Reviewer

- 2018 Present: MDPI Journals. Reviewed about 53 manuscripts submitted for various journal of this publisher.
- 2011 Present. Extension Fact Sheet Review Committee, Ohio State University Extension. I reviewed draft fact sheets that are assigned to him.
- 2017 2022. Journal of National Association of County Agricultural Agents (NACAA).
- I typically reviewed three to four manuscripts for the Journal since 2017. This is an appointed position by the Editor of the Journal. I was selected as a reviewer since I have published two papers in the Journal of NACAA.
- 2) List of Offices Held and Other Service to Professional Societies. List of Organization in Which Office was Held or Service Performed. Describe Nature of Organization (Open or Elected Membership, Honorary)
- 2017 2019. National Vice Chair for North Central Region, Professional Excellence Committee, National Association of Agricultural County Agents (NACAA).

This is an appointed position by the National Chair and the Council Chair of the NACAA. (Appointed by the National Chair).

2012 - Present. Member of the Ohio Grape and Wine Conference Planning Committee, Ohio Grape Industries Committee.

I provided input on conference venue, topics, speakers, and evaluations. I also contacted speakers and sponsors. The conference draws more than 200 attendees each year (Appointed by the Committee Chair).

2014 - Present. Member of the Research Committee, Ohio Grape Industries Program, Ohio Department of Agriculture. I provided input to the committee on research priorities (Appointed position by the Committee Chair).

2014 - Present. Member of the Education Committee and Chair of the Small Fruit Track, Ohio Produce Growers, and Marketers association (OPGMA).

This is an appointed position by the Executive Director and the President of the OPGMA. I recommend the topics and speakers for the small fruit track. The conference typically draws more than 300 attendees each year in January (Volunteered for the Committee).

2001 - 2014. State Chair, State Chair Horticulture and Turfgrass Committee, National Association of County Agricultural Agents.

This was an appointed position by the State President (Volunteered and appointed by the State President).

2006 - 2007. Facilities Co-Chair, 2007 Annual Meeting and Professional Improvement Conference of National Association of County Agricultural Agents.

The meeting was held in Cincinnati, Ohio. I coordinated AV equipment, some rooms, and decorations. (Volunteered and appointed by the State President).

2004 - 2006. Journal of Extension Board of Directors representing National Association of County Agricultural Agents.

I served as the Chair of the Marketing Committee for two years while I was on the board. I also attended the board meetings and wrote reports to the Board of NACAA. (Nominated by the Vice President of NACAA and appointed by the NACAA Board).

2001 - 2003. National Vice Chair, Communications Committee, National Association of County Agricultural Agents (NACAA).

I coordinated regional judging of communications contest entries from 12 states in the North Central Region. Communications contest has the most entries among all award contests of NACAA. There are typically 600 - 700 entries in 14 categories each year. (Volunteered and Appointed by the NACAA Board).

2008 - Present: Member of the JCEP Global Relations Committee.

1986 - Present. Member, American Society for Horticultural Science, Alexandria, VA.

1986 - Present. Member, American Society of Enology and Viticulture, Davis, California

2011 - Present. Member, North American Bramble Growers Association, North Carolina.

3) List of Consultation Activity

I have provided unpaid consultation services to Ohio Grape Industries Program, Ohio Produce Growers and Marketers Association, Ohio Nursery and Landscape Association, Clermont and Delaware County Soil and Water Conservation Service, and Farm Services Agency due to my professional expertise.

4) Clinical Services State Specific Clinical Assignments

I have answered questions from the Director of the C. Wayne Ellett Plant and Pest Diagnostic Clinic on berry crops.

5) Other Professional/Public Community Service directly related to the Candidates' Processional Expertise, if not Listed Elsewhere

Community Service

2009- 2011. Education Committee, member, Delaware, United States, Ohio,

Delaware County Soil and Water Conservation District. Delaware, Ohio, United States. I served on the education committee for the Delaware County Soil and Water Conservation District.

Service to Other Universities

2011 – Present: I wrote seven letters of evaluations for candidates' promotion to either professor or associate for Arizona State University, Oregon State University, Rutgers University, University of Florida, and Utah State University.

2011 External Review of Mr. John Murray's Promotion Packet. Morgantown, United States, West Virginia, West Virginia University Extension Service. Morgantown, West Virginia, United States. I wrote a letter of evaluation of Mr. John Murray's promotion and tenure packet for his application to extension Assistant Professor rank.

6) Administrative Service

a) Unit Committees

Center (OSU South Centers in Piketon)

2018 Member, Search Committee for a Soils, Water, and Bioenergy Research Assistant, OSU South Centers.

2011 - 2016 Co-Chair, Center Landscaping, Ohio State University South Centers.

I oversaw a redesign of the landscape and coordinated the planting and maintenance of the flower beds there.

2017 Chair, Search Committee for a Horticulture Research Associate, OSU South Centers.

A successful candidate was hired in July 2017.

2015 Chair, Search Committee for a Soils, Water, and Bioenergy Research Associate, OSU South Centers. A successful candidate was hired in 2015.

2013 Chair, Search Committee for a Horticulture Research Assistant.

A successful candidate was hired in July 2013.

Department (Department of Extension)

2023 Member, Search Committee for the specialty crop field specialist position, OSU Extension.

2022 - 2023 Member of Adhoc Committee for Promotion to Professor

2022 - 2023 Member of Search Committee for the Specialty Crop Field Specialist Position

2020 Chair, Adhoc Committee for Promotion to Professor

2017 – Present Wrote a peer letter of teaching for Jim Chatfield, Dave Marrison, Chris Zoller, Ed Lentz, Brad Bergefurd, and Pam Bennett

2018 Wrote an EEET summary letter for Dr. Daniel Remley's application to Associate Professor.

2007 - 2014 Director's Internal Advisory Committee, member.

I provided updates on my extension activities and made suggestions to the OSU Extension director on the future of the Extension.

2006 - 2007 Promotion and Tenure Committee, Department of Extension.

I was a member of the Promotion and Tenure Committee. While on the committee, I served as the faculty "coach" for Mr. Dave Apsley (2005-2006) and Mr. Greg Labarge (2006-2007). Both candidates were promoted successfully.

Department of Plant Pathology

2001 - 2012 Fruit Extension Advisory Committee, member.

I attended the committee meetings and provided input for the fruit extension programs at the Department of Plant Pathology.

b) College or University Committees

2022 - 2023. Member and Co-POD, CFAES College Promotion and Tenure Committee

2013 - Present Internal Grant Committee (The CFAES Research Competitive Grants Program)
The Internal Grant Program is funded by appropriations made to the Ohio Agricultural Research and Development Center (OARDC) of The Ohio State University. Its predecessor was SEEDS Committee.

2013 - 2015 Member, The Interdisciplinary Committee and Partnership committees, SEEDS

2016 Chair, Early Career Committee, SEEDS

2017 Chair, SEEDs Committee2018 Chair, Early Career, SEEDS.

The goal of SEEDS is to foster research excellence among scientists and faculty in the College of Food, Agricultural, and Environmental Sciences. SEEDS began in 1996 with \$250,000 and one competition. Since then, it has expanded to include seven competitions and is funded with \$1.2 million. These competitions address several different objectives. I represented Extension on SEEDs. The committee reviews many proposals from different departments. We reviewed 30-40 proposals each year. The funded amounts for these proposals can range from \$50,000 - \$100,000 per proposal.

As the chair of the SEEDs, I led the discussion, gathered input from committees, and helped draft letters to the administration. I also wrote responses to the faculty members whose proposals were not funded.

University

University Senate:

2022 - 2023. Member of Evaluation of Central Administration Community, University Faculty

2020 - 2022. University Senator (Chair of Evaluation of Central Administration in 2021-2022, panel chair in 2020-2021), a member of Faculty Cabinet in 2021-2022.

2015 - 2019. Alternate Senator on Ohio State University Faculty Senate, representing the College of Food, Agricultural and Biological Sciences. I attended three senate meetings on behalf of two faculty senators who could not attend in 2016 and 2017.

c) Initiatives Undertaken to Enhance Diversity in your Unit, College, or the University Our Notice of Nondiscrimination reads as follows: "The College of Food, Agricultural, and Environmental Sciences (CFAES) and its academic and research departments including Ohio Agricultural Research and Development Center (OARDC), Ohio State ATI, and Ohio State University Extension embrace human diversity and are committed to ensuring that all research and related educational programs are available to clientele on a nondiscriminatory basis without regard to age, ancestry, color, disability, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, race, religion, sex, sexual orientation, or veteran status. This statement is in accordance with U.S. civil rights laws and the U.S. Department of Agriculture."

I agree with the statement and have always tried my best to treat everyone equally. Since I am a minority faculty, I have a good understanding of what other minority colleagues are going through. I always go out of my way to help everyone. To embrace diversity to me is just being a good human being and being a good extension faculty member.

d) Administrative Positions Held, e.g., Graduate Studies Chair 2003 - 2006. County Extension Director/Chair. Ohio State University Extension in Clermont County.

I developed, submitted, and defended an annual budget of \$300,000 to \$340,000. I also supervised a staff of nine people in the office. When I left the Clermont County Extension office in August 2006, the office had the highest annual budget ever.

- e) Service as a Graduate Faculty Representative on a Dissertation in another Unit or University I served as a graduate Faculty Representative for two Ph.D. students, one in Social Science in 2020 and another one in Communications in 2023. I served as the graduate Faculty Representative (GFR) for Ms. Krishnaja Duvvuri of the Department of Chemistry and Biochemistry on April 21, 2018. She was advised by Dr. T. V. (Babu) RajanBabu, an Arts and Sciences Distinguished Professor at The Ohio State University.
- 7) Advisor to Student Groups and Organizations

NA

8) Office of Student Life Committees

NA

a) List Office of Student Life Committees on which You have served

NΑ

b) Summarize participation in Student Life programs such as fireside discussions, lectures to student groups outside of your unit, addresses or participation at student orientations NA

Honors

2023. National Finalist. Search for Excellence in Young, Beginning, and Small Farmers/Ranches Program, National Association of County Agricultural Agents (NACAA).

Authors: Gao, G., M.R. Slaughter, B. Sherman, B. Robertson, M. Smith, I. Dami, A. Kirk, Todd Seiner, and C. Eckstein.

2023. National Finalist. Communications Award Program in Promotional Piece category, NACAA. Authors: Gao, G., and M.R. Slaughter.

2022. State Winner. NACAA Communication Award for Publication "Direct Marketing of Fruit Crops to Ohio Wineries."

Authors: Gao, G., M.R. Slaughter, E. Brown, and J. Fox.

2019. Outstanding Book Award for "Midwest Home Fruit Production Guide" from the American Society for Horticultural Science (Editor and a co-author).

2018. Distinguished Team Award Winner by Epsilon Sigma Phi Alpha Eta Chapter/Ohio JCEP

- Authors: Dan Remley, Tammy Jones, Brad Bergefurd, Gary Gao, Carol Hamilton, Jeff Fisher, Chelsea Peckny, Karima Samadi, Ryan Slaughter, Vinayak Shedekar, Thomas Harker, Ivory Harlow
- 2018. State Winner in the Search for Excellence program in "Young, Beginning, Small Farmer and Rancher," NACAA.
- 2017. National Winner in the Bound Book Category of the 2017 Communications Contest, NACAA.
- 2017. National Winner in the Search for Excellence program in "Young, Beginning Farmer and Ranchers," NACAA.
- 2017. State Winner in the Publication Category of the 2017 Communications Contest, NACAA.
- 2014. National Finalist in Communications Contest in Bound Book, NACAA.
- 2014. National Finalist in Young Beginning Small Farmers Ranchers, NACAA.
- 2013. Regional Winner in Search for Excellence in Young, New, Beginning Farmers and Ranchers, NACAA.
- 2013. State Winner in Promotional Piece of the Communication Contest, NACAA.
- 2013. Regional Winner Promotional Piece of the Communications Contest, NACAA
- 2013. State Winner in Team Newsletter of the Communications Contest, NCAAA.
- 2012. National Finalist in Search for Excellence in Young Beginning, Small Farmers, and Ranchers, NACAA
- 2012. State Winner Fact Sheet for "Growing Blueberries in the Home Garden," NACAA
- 2012. National Finalist Newsletter of the Communications Contest, Bayer Advanced, NACAA.
- 2011. State Winner in the Team Newsletter of the Communications Contest, NACAA.
- 2011. State Winner in Search for Excellence in Landscape Horticulture, NACAA.
- 2011. Regional finalist for the NACAA Communications Contest, NACAA.
- 2010. The State Winner for Search for Excellence in Landscape Horticulture, NACAA.
- 2010. National Finalist, for Search for Excellence in Landscape Horticulture, NACAA.
- 2009. National Winner in the Bound Book Category of the 2009 Communications Contest, NACAA.
- 2009. National Finalist in the 2009 Search for Excellence in Landscape Horticulture, NACAA.

- 2007. National Winner in the Bound Book Category of the 2007 Communications Contest, NACAA.
- 2001. National Finalist for the 2001 Search for Excellence in Environmental Protection Through Responsible Use of Pesticides in Urban category, NACAA.
- 2000. State Winner in the 2000 Communications Contest in Publication Category, NACAA.
- 2000. State Winner in the 2000 Search for Excellence in Crop Production, NACAA.
- 2000. State Winner in the 2000 Communications Contest in Home Page on World Wide Web, NACAA.
- 1999. State Winner in the 1999 Communications Contest in Team Newsletter Category, NACAA.
- 1998. State Winner in the 1998 Search for Excellence in Crop Production, NACAA.
- 1996. National Finalist in the 1996 Search for Excellence in Environmental Protection Through Responsible Use of Pesticides in Urban category, NACAA.
- 1996. State Winner in the 1996 Search for Excellence in Environmental Protection Through Responsible Use of Pesticides in Urban Category, NACAA.
- 1995. Governor's Arbor Day Award in 1995. The award was presented to OSU Extension Nursery, Landscape, and Turf Team for tree planting education.