

Sanliang Gu - CV 2019

TITLE AND RANK

Ricchiuti Chair of Viticulture Research

Professor of Viticulture

OFFICE CONTACTS

Viticulture and Enology Research Center
Department of Viticulture and Enology
California State University, Fresno
E-Mail: sanliang@mail.fresnostate.edu

2360 East Barstow Avenue M/S VR 89
Fresno, California 93740-8003
Phone: 559-278-4786
FAX: 559-278-4795

EDUCATION

Doctor of Philosophy

Horticulture

Oregon State University

Master of Science

Horticulture

Oregon State University

Bachelor of Science

Pomology

Shandong Agricultural University

HONORS

Outstanding Research & Scholarly Activity Award. 2004. Jordon College of Agricultural Sciences & Technology, California State University, Fresno, California.

Best Paper of the Year. 1995. *American Journal of Enology and Viticulture* 45:155-160, American Society for Enology and Viticulture.

PROFESSIONAL EXPERIENCE

Ricchiuti Chair of Viticulture Research and Professor of Viticulture (1999-present).

Viticulture and Enology Research Center and Department of Viticulture and Enology, California State University, Fresno, California. Research on winegrape physiology and production, teaching courses at undergraduate or graduate-levels in viticulture and research methodology, and supervising undergraduate and graduate student research projects and theses.

Viticulture Advisor and Assistant Research Professor of Fruit Science (1995-1999).

Department of Fruit Science, Missouri State University, Mountain Grove, Missouri. Advising grape growers and conducting research on immediate problems affecting the grape and wine industry.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

American Society for Enology and Viticulture (ASEV).

American Society for Horticultural Science (ASHS).

International Society of Biometeorology (ISB).

Plant Growth Regulation Society of America (PGRSA).

International Society for Horticultural Science (ISHS).

UNIVERSITY TEACHING

Viticulture 106. Winegrape Production. Department of Viticulture and Enology, Department of Plant Science, California State University, Fresno. Undergraduate. 1999-2004, 2006-2017, 2019.

Viticulture 102. General Viticulture II. Department of Viticulture and Enology, California

- State University, Fresno. Undergraduate. 2004, 2007-2017.
- Viticulture 101. General Viticulture I.** Department of Viticulture and Enology, California State University, Fresno. Undergraduate. 2002, 2016, 2017.
- Viticulture 165. Grapes – Varieties and Rootstocks.** Department of Viticulture and Enology, California State University, Fresno. Undergraduate. 2005, 2008.
- Agriculture 220. Research Methodology and Communications.** Jordon College of Agricultural Sciences and Technology, California State University, Fresno. Graduate. 1999-2003.

MAJOR RESEARCH GRANTS

- Gu, S.** Efficacy of Manda 31, a naturally fermented plant concentrate, to enhance grapevine growth, increase crop yield, and improve fruit quality. 2019-2020.
- Gu, S.** and D. Zoldoske. Using Internet of Things and Big Data analytics to improve water use efficiency in vineyards. 2017-2019.
- Gu, S.,** A. Sabuwala, and Hemant Gohil. Using degree hours to better interpret heat accumulation and thermal distribution for winegrape production in California. 2012-2014.
- Gu, S.,** K. Kurtural, M. Paggi, J. Kennedy, and D. Zoldoske. Crop forcing for quality winegrape production of cool climate fruit in warmer regions – cultural practices and economic analysis. 2010-2016.
- Gu, S.** and R. Wample. Application of abscisic acid (ABA) to enhance color development and extractability in red winegrapes. 2007-2012.
- Gu, S.,** J. Prince, K. Fugelsang, P. Verdegaal, C. Ingels, and J. Ledbetter. Influence of training systems, pruning practices, and soil types on Eutypa dieback incidence and severity, viticultural performance, and wine quality in Cabernet Sauvignon grapevines. 1999-2004.
- Gu, S.,** K. Fugelsang, B. Anthony, and D. Zoldoske. Concentration and potential of and relationship between juice arginine and wine ethyl carbamate influenced by rootstocks, clones, training, pruning, irrigation, and soil fertility in Cabernet Sauvignon, Syrah, Sauvignon blanc, and Chardonnay grapevines. 1999-2001.
- Gu, S.,** D. Zoldoske, and K. Fugelsang. Effect of partial rootzone drying on vine water relation, vegetative growth, mineral nutrition, yield components, fruit composition, and wine quality in Sauvignon blanc and Merlot grapevines. 1999-2002.
- Gu, S.** and D. Ramming. Evaluation of viticultural performance of new USDA-ARS rootstocks for wine, raisin, and table grapes grown in the San Joaquin Valley of California. 1999-2001.
- Gu, S.** and R. Goodman. Acclimation and deacclimation of cold hardiness in major existing and imported grapevines under fluctuating winter temperatures. 1996-1999.
- Gu, S.,** K. L. Wilker, and M.R. Dharmadhikari. Evaluation of grape cultivars and advanced breeding selections for adaptability to Missouri conditions. 1995-1999.
- Gu, S.** Effect of elevated CO₂ and temperature on cold hardiness in relation to carbohydrate status, abscisic acid, and gas exchange in Douglas-fir (*Pseudotsuga menziesii*). 1995-1996.

MAJOR RESEARCH PUBLICATIONS

- Tian, T. and **S. Gu.** 2019. Improving fruit anthocyanins in ‘Cabernet Sauvignon’ by shifting fruit ripening and irrigation reduction post veraison in warmer region. *Vitis*. 58:23-31.

- Gu, S.** 2016. Growing degree hours – a simple, accurate, and precise protocol for better approximation of growing heat summation. *International Journal of Biometeorology*. 60: 1123-1134.
- Feliziani E, J. L. Smilanick, D. Margosan, M. Mansour, G. Romanazzi, **S. Gu**, H. L. Gohil, and A. Rubio. 2013. Preharvest fungicide, potassium sorbate, or chitosan use on quality and storage decay of table grapes. *Plant Disease*. 97:307-314.
- Gu, S.**, S. Jacobs, B. McCarthy, and H. Gohil. 2012. Forcing vine regrowth and shifting fruit ripening in warm regions to enhance fruit quality of Cabernet Sauvignon grapevines. *Journal of Horticultural Science and Biotechnology*. 87:287-292.
- Gu, S.**, S. Jacobs, and G. Du. 2011. Efficacy, rate and timing of applications of abscisic acid to enhance fruit anthocyanin contents in ‘Cabernet Sauvignon’ grapes. *Journal of Horticultural Science and Biotechnology*. 86:505-510.
- Guan, X.Q. and **S. Gu**. 2009. Photorespiration and photoprotection of grapevine (*Vitis vinifera* L. Cv. Cabernet Sauvignon) under water stress. *Photosynthetica* 47:437-444.
- Gu, S.**, R. C. Cochran, G. Du, A. Hakim, K. C. Fugelsang, J. Ledbetter, C. A. Ingels, and P. S. Verdegaal. 2005. Effect of training-pruning regimes on Eutypa dieback and performance of Cabernet Sauvignon grapevines. *Journal of Horticultural Science and Biotechnology*. 80:313-318.
- Gu, S.**, G. Du, D. Zoldoske, A. Hakim, R. Cochran, K. Fugelsang, and G. Jorgensen. 2004. Effect of irrigation amount on water relations, vegetative growth, yield, and fruit composition of Sauvignon blanc grapevines under partial rootzone drying and conventional irrigation in the San Joaquin Valley of California, USA. *Journal of Horticultural Science and Biotechnology*. 79:26-33.
- Gu, S.**, P. Ding, and S. Howard. 2002. Effect of temperature and exposure time on cold hardiness of primary buds during early, middle, and late dormant season in Concord, Norton, Vignoles, and St. Vincent grapevines. *Journal of Horticultural Science and Biotechnology*. 77:635-639.
- Gu, S.**, S. Dong, J. Li, and S. Howard. 2001. Acclimation and deacclimation of primary bud cold hardiness in Norton, Vignoles, and St. Vincent grapevines. *Journal of Horticultural Science and Biotechnology*. 76:655-660.
- Gu, S.** 1999. Lethal temperature coefficient – a new parameter for interpretation of cold hardiness. *Journal of Horticultural Science and Biotechnology*. 74:53-59.
- Gu, S.**, L.H. Fuchigami, L.L. Cheng, S.H. Quak, and C. Shin. 1998. Effects of antitranspirant and leaching on medium osmotic potential, leaf stomatal status, transpiration, abscisic acid content, and plant growth in Early Girl tomato plants. *Journal of Horticultural Science and Biotechnology*. 73:473-477.
- Gu, S.**, L. H. Fuchigami, S.H. Guak, and C. Shin. 1996. Effect of short-term water stress, hydrophilic polymer amendment, and antitranspirant on stomatal status, transpiration, water loss, and growth in Better Boy tomato plants. *Journal of American Society for Horticultural Science*. 121:831-837.
- Gu, S.**, P.B. Lombard, and S.F. Price. 1996. Effect of shading and nitrogen source on growth, tissue ammonium and nitrate status, and inflorescence necrosis in Pinot noir grapevines. *American Journal of Enology and Viticulture*. 47:173-180.
- Gu, S.**, P.B. Lombard, and S.F. Price. 1994. Inflorescence necrosis induced from ammonium incubation and deterred by α -keto-glutarate, and ammonium assimilation in Pinot noir grapevines. *American Journal of Enology and Viticulture*. 45:155-160.