

STEVEN KOIKE
Director, TriCal Diagnostics
Cell 408-612-6729
SKoike@trical.com

TriCal, Inc.
8100 Arroyo Circle
Gilroy, California 95020
www.tricaldiagnostics.com

Steven Koike is plant pathologist with and director of TriCal Diagnostics, a commercial plant pathology diagnostic and research company. He oversees operations for this industry lab, leads the team in providing expert plant disease diagnostics and problem solving, conducts soil testing for pathogens, carries out research on soilborne and foliar pathogens, and provides plant pathology and IPM information to those who grow and work with agricultural commodities throughout the U.S. Prior to TriCal Diagnostics, for 28 years Koike was extension plant pathologist with the University of California Cooperative Extension and conducted research and extension activities in California's central coast region.

Koike has extensive field and research experience with the diseases of many crops including vegetables, fruits, horticultural commodities, and landscape plantings. In his career as a plant pathologist, he published over 1,130 articles, including more than 400 scientific/peer-reviewed articles. He wrote the widely used 450-page book *Vegetable Diseases: A Color Handbook*. He has presented over 400 talks at grower meetings, extension events, technical workshops, and national/international scientific conferences.

Koike has received numerous awards, including the national Excellence in Extension Plant Pathology award from the American Phytopathological Society (APS) and the Outstanding Contribution to Agriculture Award from the California Association of Pest Control Advisors (CAPCA).

Recent Peer-Reviewed Scientific Publications

Shennan, C., Muramoto, J., Koike, S., et al. 2018. Anaerobic soil disinfestation is a potential alternative to soil fumigation for control of some soilborne pathogens in strawberry production. *Plant Pathology* 67:51-66.

Tsuchida, C. T., Mauzey, S. J., Hatlen, R., Miles, T. D., and Koike, S. T. 2018. First report of *Pythium* root rot caused by *Pythium mastophorum* on parsley in the United States. *Plant Disease* 102:1671.

Gutierrez-Rodriguez, E., Gundersen, A., Sbodio, A., Koike, S., and Suslow, T. V. 2018. Evaluation of post-contamination survival and persistence of applied attenuated *E. coli* O157:H7 and naturally-contaminating *E. coli* O157:H7 on spinach under field conditions and following postharvest handling. *Food Microbiol.* 77:173-184.

Burkhardt, A., Ramon, M. L., Smith, B., Koike, S. T., and Martin, F. 2018. Development of molecular methods to detect *Macrophomina phaseolina* from strawberry plants and soil. *Phytopathology* 108:1386-1394.

Fletcher, K., Klosterman, S. J., Derevnina, L., Martin, F., Bertier, L. D., Koike, S., Reyes-Chin-Wo, S., Mou, B., and Michelmore, R. 2018. Comparative genomics of downy mildews reveals potential adaptations to biotrophy. *BMC Genomics* 19:851 (1-23). <https://doi.org/10.1186/s12864-018-5214-8>.

Burkhardt, A., Henry, P. M., Koike, S. T., Gordon, T. R., and Martin, F. 2019. Detection of *Fusarium oxysporum* f. sp. *fragariae* from infected strawberry plants. *Plant Disease* 103:1006-1013.

Koike, S. T., Stanghellini, H., Mauzey, S. J., Burkhardt, A., and Stanghellini, M. S. 2019. First report of Phytophthora root and bulb rot caused by *Phytophthora cryptogea* on shallot in the United States. *Plant Disease* 103:1436.

Koike, S. T., Stanghellini, H., Mauzey, S. J., and Burkhardt, A. 2019. First report of Sclerotinia crown rot caused by *Sclerotinia minor* on hemp. *Plant Disease* 103:1771.

Moyné, A.-I., Blessington, T., Williams, T. R., Koike, S. T., Cahn, M. D., Marco, M. L., and Harris, L. J. 2019. Conditions at the time of inoculation influence survival of attenuated *Escherichia coli* O157:H7 on field-inoculated lettuce. *Food Microbiology* 85: (<https://doi.org/10.1016/j.fm.2019.103274>).

Dhar, N., Mamo, B. E., Subbarao, K. V., Koike, S. T., Fox, A., Anchieta, A., and Klosterman, S. J. 2020. Measurements of aerial spore load by qPCR facilitates lettuce downy mildew risk assessment. *Plant Dis.* 104:82-93.

Hoffmann, M., Husein, A., Westerdahl, B. B., Koike, S. T., Stanghellini, M., Wilen, C., and Fennimore, S. A. 2020. Multi-tactic preplant soil fumigation with allyl isothiocyanate in cut flowers and strawberry. *HortTechnology* 30:251-258.

Muramoto, J., Shennan, C., Mazzola, M., Wood, T., Miethke, E., Resultay, E., Zavatta, M., and Koike, S. T. 2020. Use of a summer cover crop as a partial carbon source for anaerobic soil disinfestation in coastal California. *Acta Horticulturae* 1270:37-43.

Kandel, S. L., Hulse-Kemp, A. M., Stoffel, K., Koike, S. T., Shi, A., Mou, B., Van Deynze, A., and Klosterman, S. J. 2020. Transcriptional analyses of differential cultivars during resistant and susceptible interactions with *Peronospora effusa*, the causal agent of spinach downy mildew. *Scientific Reports/NatureResearch* 10:6719. <https://www.nature.com/articles/s41598-020-63668-3>

Koike, S. T., Stanghellini, H., and Burkhardt, A. 2020. First report of crown rot caused by *Rhizoctonia solani* AG 2-1 on broccoli rabe in Arizona. *Plant Disease* 104:3079.

Chen, Y.-Y., Koike, S. T., Logan, G. D., Drozd, C., De Oliveira Silva, J., Colindres, N. B., Peacock, B. B., Smith Becker, J., Loffredo, A., Wu, H., Ruegger, P. M., Becker, J. O., and Borneman, J. 2020. Detection of nematophagous fungi from *Heterodera schachtii* females using a baiting experiment with soils cropped to *Brassica* species from California's central coast. *PhytoFrontiers*: <https://doi.org/10.1094/PHYTOFR-07-20-0009-R>

Koike, S. T., Stanghellini, H., and Burkhardt, A. 2021. First report of *Macrophomina* crown rot caused by *Macrophomina phaseolina* on basil in the United States. *Plant Disease* 105:1218.

Koike, S. T., and Tjosvold, S. A. 2021. Diseases of floriculture and ornamental nurseries. UC Pest Management Guidelines. Floriculture and Ornamental Nurseries / Agriculture: Pest Management Guidelines / UC Statewide IPM Program (UC IPM) (ucanr.edu).

Zavatta, M., Muramoto, J., Milazzo, E., Koike, S., Klonsky, K., Goodhue, R., and Shennan, C. 2021. Integrating broccoli rotation, mustard meal, and anaerobic soil disinfestation to manage *Verticillium* wilt in Strawberry. *Crop Protection* 146:105659.

Joseph, S. V., and Koike, S. T. 2021. Could broccoli and cauliflower influence the dispersal dynamics of western flower thrips (Thysanoptera: Thripidae) to lettuce in the Salinas Valley of California? *Environmental Entomology* 50:995-1005.

Koike, S. T., Stanghellini, H., and Burkhardt, A. 2021. First report of *Phytophthora* root rot caused by *Phytophthora cryptogea* on field-grown lettuce in California. *Plant Disease* 105:2257-2258.

Luecke, N. C., Crawford, K. M., Koike, S. T., Stanghellini, H., and Burkhardt, A. 2022. First report of root rot caused by *Pythium dissotocum* on hydroponically grown collard greens (*Brassica oleracea* var. *acephala*). *Plant Disease* 106:1075.

Ivors, K. L., Warres, B., Ho, T., Buhler, J., Broome, J. C., Meyer-Jertberg, M., and Koike, S. T. 2023. First report of *Berkeleyomyces basicola* causing black shoot rot of raspberry in nursery production in the United States and worldwide. *Plant Disease* 107: In press.

Blomquist, C. L., Rooney-Latham, S., Albu, S., and Koike, S. T. 2023. First report of leaf blight on California buckeye caused by *Boeremia lilacis* in California. *Plant Disease* 107: In press.

Slinski, S. L., Palumbo, J. C., Koike, S. T., Stanghellini, H. G., Tsuchida, C., and Guerrero, J. 2023. First report of *Globisporangium uncinulatum* (syn. *Pythium uncinulatum*) causing *Pythium* wilt of lettuce in Arizona. *Plant Disease* 107: In press.

Koike, S. T., Stanghellini, H., Tsuchida, C., and Guerrero, J. 2024. First report of *Globisporangium uncinulatum* (syn. *Pythium uncinulatum*) causing *Pythium* wilt of artichoke in California. *Plant Disease* 108: In press.

Awards

1999 Resolution for excellence in service and research. Monterey County Board of Supervisors.

2000 Award for Outstanding Achievement in Extension. California Friends of Agricultural Extension.

2005 Award from the Joseph M. Ogawa Research & Teaching Endowment. UC Davis.

1993, 1998, and 2006 Milton D. & Mary M. Miller Plant Science awards. UC Davis.

2011 Oscar Lorenz Award for meritorious service to the California vegetable industry. UC Davis.

2002 and 2011 Distinguished Service awards for Outstanding Research. University of California.

2013 National Excellence in Extension Award. American Phytopathological Society.

2018 Outstanding Contribution to Agriculture. California Association of Pest Control Advisors.