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Steven Koike is plant pathologist with and director of TriCal Diagnostics. He oversees operations for this commercial diagnostic lab, leads the team in providing expert plant disease diagnostics and problem solving, conducts soil testing for pathogens, researches 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, Koike was extension plant pathologist with the University of California Cooperative Extension and conducted research and extension activities in California's central coast region. With the university, he designed and operated the only off-campus diagnostic lab and investigated diseases of vegetable, fruit, and ornamental crops. During his 28-year extension career he published over 1,000 scientific and extension publications, including his 450-page book *Vegetable Diseases: A Color Handbook*. He presented his research at many national and international conferences, gave 374 extension talks, and organized and hosted 88 extension meetings and workshops.

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

#### Recent Peer-Reviewed Scientific Publications

Koike, S. T., and Gilbertson, R. L. 2017. Detection of *Xanthomonas campestris* pv. *vitiensis* in lettuce seeds. Book chapter 25 (pages 173-178) in: M. Fatmi, R. R. Walcott, and N. W. Schaad (eds.), *Detection of Plant-Pathogenic Bacteria in Seed and Other Planting Material*. Second edition. APS Press. St. Paul, Minnesota.

Koike, S. T., Alger, E. I., Ramos Sepulveda, L., and Bull, C. T. 2017. First report of bacterial leaf spot caused by *Pseudomonas syringae* pv. *tomato* on kale in California. *Plant Disease* 101:504.

Henry, P. M., Kirkpatrick, S. C., Islas, C. M., Pastrana, A. M., Yoshisato, J. A., Koike, S. T., Daugovish, O., and Gordon, T. R. 2017. The population of *Fusarium oxysporum* f. sp. *fragariae*, cause of Fusarium wilt of strawberry, in California. *Plant Disease* 101:550-556.

Koike, S. T., Smith, R. F., Cahn, M. D., and Pryor, B. M. 2017. Association of the carrot pathogen *Alternaria dauci* with new diseases, Alternaria leaf speck, of lettuce and celery in California. *Plant Health Progress* 18:136-143.

Miles, T. D., Koike, S. T., and Legard, D. 2017. Evaluation of commonly grown commercial strawberry varieties for susceptibility to gray mold and Rhizopus fruit rot, 2015 and 2016. *Plant Disease Management Reports* 11:SMF033.

Correll, J. C., Feng, C., Matheron, M. E., Porchas, M. and Koike, S. T. 2017. Evaluation of spinach varieties for downy mildew resistance, 2017. *Plant Disease Management Reports* 11:V122.

Koike, S. T., Daugovish, O., Martin, F. N., and Ramon, M. L. 2017. Crown and root rot caused by *Rhizoctonia solani* on cilantro in California. *Plant Disease* 101:2148.

Feng, C., Saito, K., Liu, B., Manley, A., Kammeijer, K., Mauzey, S. J., Koike, S. T., and Correll, J. C. 2018. New races and novel strains of the spinach downy mildew pathogen *Peronospora effusa*. *Plant Disease* 102:613-618.

Hajlaoui, M. R., Hamrouni, N., Benyahmed, N., Zouba, A., Koike, S., and Mnari-Hattab, M. 2018. First report of the yeast-like fungus *Aureobasidium iranianaum* causing leaf blight on date palms in Tunisian oases. *New Disease Reports* 37: 4, <http://dx.doi.org/10.5197/j.2044-0588.2018.037.004>.

Rosenthal, E. R., Ramos Sepulveda, L., Bull, C. T., and Koike, S. T. 2018. First report of black rot caused by *Xanthomonas campestris* on arugula in California. *Plant Disease* 102:1025-1026.

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.
- Moyne, 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 Disease* 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..

#### 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.