

**Jennifer L. Parke, Ph.D.**

Professor (Senior Research)

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**Education and Training**

- 1971-1975 B.A., Biology, University of California, Santa Cruz, California  
1976-1982 Ph.D., Botany and Plant Pathology, Oregon State University, Corvallis, Oregon  
1982-1984 Fulbright Postdoctoral Fellow, CSIRO Division of Soils, Adelaide, Australia

**Professional Experience**

- 1984 - 1990 Assistant Professor, Plant Pathology Department, University of Wisconsin-Madison, Madison, Wisconsin  
1990-1998 Associate Professor, Plant Pathology Department, University of Wisconsin-Madison, Madison, Wisconsin  
1998-2015 Associate Professor (Senior Research), Department of Crop and Soil Science and Department of Botany and Plant Pathology, Oregon State University, Corvallis, Oregon 60% Research, 30% Outreach, 10% Teaching  
2015-present Professor (Senior Research), Department of Crop and Soil Science and Department of Botany and Plant Pathology, Oregon State University, Corvallis, Oregon 60% Research, 30% Outreach, 10% Teaching

**Current Research Emphasis**

Ecology and management of *Phytophthora* in horticultural nurseries; systems approaches to pest management; biology of woody plant infection by *Phytophthora* species; soil solarization for management of soilborne pathogens and weeds

**Professional Activities**

Graduate Students and Scientist Trained: 16 M.S., 7 Ph.D., 7 Postdoctoral Associates, 1 Assistant Scientist, 1 Visiting Scientist

Teaching Experience:

University of Wisconsin-Madison: Ecology of Soilborne Plant Pathogens, Plant Pathogenic Fungi, Introductory Plant Pathology, Soil Biology

Oregon State University: Principles of Soil Science, Introductory Plant Pathology, and

Agricultural and Environmental Predicaments: A Case Studies Approach (writing-intensive course)

Professional Societies:

American Phytopathological Society (1982– present). Committees: Women in Plant Pathology, Biological Control, Soil Microbiology and Root Disease, Ornamentals

Multistate Research Project W3147 – “Managing Plant-Microbe Interactions in Soil to Promote Sustainable Agriculture” (2000-present)

Editor-in-Chief, Forest Phytophthoras – an online, open access journal (2012-present)

Patents: 3

## SELECTED PUBLICATIONS

### Refereed Journal Articles (last 5 years)

- Funahashi, F., and J. L. Parke. 2016. Effects of soil solarization and *Trichoderma asperellum* on soilborne inoculum of *Phytophthora ramorum* and *Phytophthora pini* in container nurseries. *Plant Dis.* 100:438-443.
- Parke, J.L., Knaus, B.J., Fieland, V.J., Lewis, C., and Grünwald, N.J. 2014. *Phytophthora* community structure analyses in Oregon nurseries inform systems approaches to disease management. *Phytopathology* 104:1052-1062.
- Raudales, R.E., J.L. Parke, C.L. Guy, and P.R. Fisher. 2014. Control of waterborne microbes in irrigation: a review. *Agric. Water Management* 143:9-28.
- Oßwald, W., Fleischmann, F., Rigling, D., Coelho, A. C., Cravador, A., Diez, J. Dalio, R. J., Horta, M., Jung, T., Pfanzer, H., Robin, C., Sipos, G., Solla, A., Cech, T., Chambery, A., Diamandis, S., Hansen, E., Jung, T., Orlikowski, L. B., Parke, J., Prospero, S., Werres, S. 2014. Strategies of attack and defence in woody plant–*Phytophthora* interactions. *Forest Pathology* 44:169-190.
- Parke, J. L. and N. J. Grünwald. 2012. A systems approach for management of pests and pathogens of nursery crops. *Plant Dis.* 96:1236-1244.
- Liebhold, A. M., Brockerhoff, E. G., Garrett, L. J., Parke, J. L., and Britton, K. O. 2012. Live plant imports: the major pathway for forest insect and pathogen invasions of the US. *Frontiers in Ecology and the Environment* 10:135–143.

### Relevant Technical Publications (last 5 years)

- Parke, J. and Funahashi, F. 2016. Soil solarization in container nurseries and field production. *Digger* 60:33-36.
- Stoven, H. and Parke, J. 2014. Nasty *Nostoc*. *Digger* 58:25-29.
- Parke, J. and Funahashi, F. 2013. Putting the sun to work: solarization can be an effective way to kill pests, pathogens, and weeds. *Digger* 57:33-36.
- Griesbach, J.A., Parke, J. L., Chastagner, G.C., Grünwald, N.J., Aguirre, J. 2012. Safe procurement and production manual: a systems approach for the production of healthy nursery stock. 2<sup>nd</sup> ed. Oregon Association of Nurseries, Wilsonville, OR. 106 pp.  
<http://oan.org/associations/4440/files/pdf/SafeProduction.pdf>
- Parke, J. and Fisher, P. 2012. Treating irrigation water to eliminate water molds. Pacific Northwest Plant Disease Management Handbook (J. W. Pscheidt and C. M. Ocamb, eds.)  
<http://pnwhandbooks.org/plantdisease/pesticide-articles/treating-irrigation-water-eliminate-water-molds>

### Websites Created and Maintained

- Coop, L. B., D. Upper, F. Funahashi, and J. Parke. Soil Solarization Program – for using transparent anti-condensation plastic film to manage two soil-borne plant pathogens: *Phytophthora ramorum* and *P. pini*, developed for nursery beds. Version 0.91. Oregon State University Integrated Plant Protection Center Web Site: <http://uspest.org/soil/solarize> [first version online 2016]
- Parke, J., Pscheidt, J., Regan, R., Hedberg, J., Grünwald, N. *Phytophthora* Online Course: Training for Nursery Growers <http://horticulture.oregonstate.edu/content/phytophthora-online-course-training-nursery-growers> [online 2008-present]

Parke, J. and Eberhart, J. Forest Phytophthoras of the World <http://forestphytophthoras.org/>  
[online 2012-present]

### **Recent Outreach Activities (last 2 years)**

Parke, J. L. 2015. Webinar. A systems approach to producing healthy container-grown plants.

Target audience: growers of native plants for restoration projects. 110 participants.

<https://ucd.adobeconnect.com/a841422360/p4o2997j55g/?launcher=false&fcsContent=true&pbMode=normal> . April 28, 2015.

Parke, J. L. 2015. Nursery management practices to prevent plant disease spread. Illustrated poster (17" x 26") in English and Spanish, commissioned by the Oregon Dept. of Agriculture. 1000 copies distributed to nursery growers in Oregon.

Parke, J. 2016. Soil solarization in tree seedling beds for management of weeds and soilborne pathogens. Oral presentation. Western Disease Conference, Portland, Oregon. January 14, 2016.

Parke, J. 2016. Management of *Nostoc* in container nurseries. Oral presentation. Western Disease Conference, Portland, Oregon. January 14, 2016.

Elliott, M.E. and Parke, J. L. 2016. *Phytophthora* diseases in native plant production: why should I care, and what can I do about it? Oral presentation. Seventh Native Western Plant Conference, Western Forestry Conservation Association. Vancouver, WA. Dec. 6-8, 2016.

Parke, J. L., Elliott, M.E., and Santamaria, L. 2016. Preventing *Phytophthora* contamination in native plant nurseries. Half day workshop for growers. N. Willamette Research and Extension Center, Aurora, OR. Dec. 14, 2016.