

# ANNETTE L. WSZELAKI

UNIVERSITY OF TENNESSEE  
PLANT SCIENCES DEPARTMENT  
2431 JOE JOHNSON DR.  
252 ELLINGTON PLANT SCIENCES  
KNOXVILLE, TN 37996-4561

EMAIL [AWSZELAK@UTK.EDU](mailto:AWSZELAK@UTK.EDU)  
TELEPHONE 865.974.7208  
FAX 865.974.1947

## EDUCATION

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- Ph.D., Plant Biology, *Emphasis Postharvest Physiology*, University of California, Davis, 2001
- Dissertation title: Heat treatments, biological controls, and controlled atmospheres as alternatives to pesticides in control of *Botrytis cinerea* in postharvest handling of strawberries.
- B.S., Plant Biology, *Emphasis Ecology*, The Ohio State University, 1996
- Graduated *Summa Cum Laude*, with Distinction and Honors

## SPECIALIZATION AND AREAS OF SCHOLARSHIP

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Developing a statewide, comprehensive research and extension program in commercial vegetable production. The main focuses of my program include production and variety recommendations, diversifying production, developing alternative crops, sustainable production, crop sensory and nutrition evaluations, and postharvest handling.

## PROFESSIONAL EXPERIENCE

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2007-Present, Assistant Professor, University of Tennessee, Knoxville, TN  
2004-2006, Assistant Professor, University of Puerto Rico, Mayagüez, PR  
2001-2004, Postdoctoral Researcher, The Ohio State University, Ohio Agricultural Research and Development Center, Wooster, OH  
1996-2001, Research Assistant, University of California, Davis, CA  
1994-1996, Research Assistant, The Ohio State University, Columbus, OH

## TEACHING EXPERIENCE

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UPRM HORT 4006- Summer Internship Experience (3 credit hours)  
UPRM HORT 4996- Introduction to Postharvest Biology (Lecture and Lab; 5 credit hours)  
UPRM HORT 6650- Postharvest Physiology and Handling of Horticultural Crops (Lecture and Lab; 5 credit hours)  
UPRM HORT 6997- Scientific Writing (1 credit hour)  
OSU HCS 450- Principles of Vegetable Crop Production, Guest Lecturer on Organic Farming

### *Developed:*

HORT 4xxx (upper division undergraduate)- Organic Agricultural Production  
HORT Seminar Series- Seminars will vary by semester, themes will include, current research of faculty and students, journal club, selected topics of horticulture

### *Implemented:*

HORT Seminar Series- Seminars vary by semester, themes will include, current research of faculty and students, journal club, selected topics of horticulture

## STUDENTS ADVISED

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Karla Deza Durand, M.S., Food Science and Technology, University of Puerto Rico, Mayagüez, co-advisor  
Javier Hernán Rivera García, M.S., Food Science and Technology, University of Puerto Rico, Mayagüez, committee member  
Nalini Pandya, M.S., Food Science and Technology, University of Puerto Rico, Mayagüez, committee member  
Lizmar Perez, M.S. candidate, Food Science and Technology, University of Puerto Rico, Mayagüez,

current committee member  
Liliana Rivera, M.S. candidate, Food Science and Technology, University of Puerto Rico, Mayagüez, current committee member  
Sara Ramos, M.S. candidate, Horticulture, current committee member  
Yaritza Ramos, M.S. candidate, Food Science and Technology, University of Puerto Rico, Mayagüez, current committee member  
Kevin Brady, M.S. candidate, Horticulture, University of Puerto Rico, Mayagüez, current advisor

## PEER REVIEW EXPERIENCE

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Reviewed articles for the following journals:  
Postharvest Biology and Technology  
Journal of the Science of Food and Agriculture  
HortTechnology  
Journal of Phytopathology

## GRANT AWARDS

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- 2006-2010, USDA HATCH, University of Puerto Rico, Mayagüez, Alternatives to Pesticides for Weed, Disease, and Insect Control and Postharvest Quality of Watermelon in a Transitional Organic System, Co-PI with Dr. Bryan Brunner, Horticulture (\$38,336)  
2006-2007, USDA Special Projects, University of Puerto Rico, Mayagüez, Optimizing Hydroponic Production of Heading Lettuce in Mountainous Areas of PR, Co-PI with Dr. John Gill, Horticulture, and Lynnette Orellana, Food Science and Technology (\$3,000)  
2004-2006, USDA T-STAR Caribbean, University of Puerto Rico, Mayagüez, MAP and Postharvest Quality of Pigeon Pea, Co-PI with Dr. Carol Harper, Agricultural and Biosystems Engineering (\$96,851)  
2003, Ohio Vegetable and Small Fruit Research and Development Program Grants, The Ohio State University, Alternatives for the Control of Foliar and Fruit Diseases of Organic Tomatoes, Advised by Dr. Sally Miller, Plant Pathology (\$3,000)  
2002, Warner Endowment Fund for Sustainable Agriculture Interdisciplinary Grant, The Ohio State University, Comparing Weed Communities on Paired Organic and Conventional Farms, Advised by Dr. Doug Doohan, Horticulture and Crop Science (\$4,000)  
2002, Ohio Vegetable and Small Fruit Research and Development Program Grants, The Ohio State University, Comparing Weed Communities on Paired Organic and Conventional Farms, Advised by Dr. Doug Doohan, Horticulture and Crop Science (\$4,000) (Matching funds for above)  
2002, Ohio Agricultural Research and Development Center Industry Small Grant, The Ohio State University, Comparing Weed Communities on Paired Organic and Conventional Farms, Advised by Dr. Doug Doohan, Horticulture and Crop Science (\$2,000) (Matching funds for above)  
2000, Jastro Shields Graduate Research Award, University of California, Davis, Elevated Oxygen Atmospheres for Postharvest Control of *Botrytis cinerea* on Strawberry, Advised by Dr. Elizabeth Mitcham, Pomology (\$2,500)  
1998, Sustainable Agriculture Research & Education Program Graduate Award, University of California, Davis, Heat Treatments, Biological Controls and Controlled Atmospheres as Alternatives to Pesticides in Control of *Botrytis cinerea* in Postharvest Handling of Strawberries and Apples, Advised by Dr. Elizabeth Mitcham, Pomology (\$7,500)  
1998, Jastro Shields Graduate Research Award, University of California, Davis, Heat Treatments, Biological Controls and Controlled Atmospheres as Alternatives to Pesticides in Control of *Botrytis cinerea* in Postharvest Handling of Strawberries, Table Grapes and Apples, Advised by Dr. Elizabeth Mitcham, Pomology (\$1,500)

## REFEREED JOURNAL PUBLICATIONS

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Wszelaki, A.L., D.J. Doohan and A. Alexandrou 2007. Weed Control and Crop Quality in Cabbage (*Brassica oleracea* (Capitata group)) and Tomato (*Lycopersicon lycopersicum*) Using a Propane Flamer. *Crop Protection* 26:134-144.

Nahar, M.S., P.S. Grewal, S.A. Miller, D. Stinner, B.R. Stinner, M.D. Kleinhenz, A. Wszelaki and D. Doohan 2006. Differential effects of raw and composted manure on nematode community, and its

indicative value for soil microbial, physical and chemical properties. *Applied Soil Ecology* 34:140-151.

Wszelaki, A.L., J.F. Delwiche, S.D. Walker, R.E. Liggett, J.C. Scheerens and M.D. Kleinhenz 2005. Sensory quality and mineral and glycoalkaloid concentrations in organically and conventionally grown redskin potatoes (*Solanum tuberosum*). *Journal of the Science of Food and Agriculture* 85:720-726.

Wszelaki, A.L., and S.A. Miller 2005. Determining the efficacy of disease management products in organically-produced tomatoes. Online. *Plant Health Progress* doi:10.1094/PHP-2005-0713-01-RS.

Wszelaki, A.L., J.F. Delwiche, S.D. Walker, R.E. Liggett, S.A. Miller, and M.D. Kleinhenz 2005. Consumer liking and descriptive analysis of six varieties of organically grown edamame-type soybean. *Food Quality and Preference* 16:651-658.

Wszelaki, A.L. and E.J. Mitcham 2003. Effect of combinations of hot water dips, biological control and controlled atmospheres for control of gray mold on harvested strawberry. *Postharvest Biology and Technology* 27:255-264.

Wszelaki, A.L., S.D. Walker, C.P. Steiner and S.A. Miller 2003. Evaluation of alternatives for the control of foliar and fruit diseases of organic processing tomatoes, 2002. *Biological and Cultural Tests for Control of Plant Diseases* (online). Report 18:PT008. DOI:10.1094/BC18. The American Phytopathological Society, St. Paul, MN.

Kleinhenz, M.D., J.C. Scheerens, D.M. Francis, T.J.K. Radovich, D.G. French, A. Gazula, A. Wszelaki, A. Sanchez-Vela, A.A.C. McIntyre, J. Delwiche and P. Ling 2003. From farm to consumer – linking crop physiology and production with buyer-oriented quality. I. Vegetables. *Acta Horticulturae* 604:95-103.

Kleinhenz, M.D. and A. Wszelaki 2003. Yield and head trait relationships in cabbage (*Brassica oleracea*, L. Capitata Group) I. Fresh Market. *HortScience* 38:1349-1354.

Wszelaki, A. and M.D. Kleinhenz 2003. Yield and head trait relationships in cabbage (*Brassica oleracea*, L. Capitata Group) II. Processing. *HortScience* 38:1355-1359.

Wszelaki, A.L. and E.J. Mitcham 2000. Effects of superatmospheric oxygen on strawberry fruit quality and decay. *Postharvest Biology and Technology* 20:125-133.

Snow, A.A., P. Moran-Palma, L.H. Riesberg, A.L. Wszelaki and G.J. Seiler 1998. Fecundity, phenology, and seed dormancy of F<sub>1</sub> wild-crop hybrids in sunflower (*Helianthus annuus*, Asteraceae). *American Journal of Botany* 85:794-801.

## **PUBLISHED ABSTRACTS**

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Wszelaki, A. 2007. Flame weeding: The history, principles and practice. *HortScience* 42:816.

Deza-Durand, K., C. Harper, and A. Wszelaki. 2007. Sensory characteristics of pigeon pea pods and seeds following storage in modified atmosphere packaging. *HortScience* 42:928.

Wszelaki, A.L., and B. Brunner 2006. Alternatives for pest management in a tropical organic watermelon production system. *HortScience* 41:1080.

Wszelaki, A., and B. Brunner 2006. Creating a more sustainable watermelon production system in Puerto Rico. *Proceedings of the Interamerican Society for Tropical Horticulture* (In press) (Abstract).

Roque, S.M., B. Brunner and A. Wszelaki 2006. Alternativas para el manejo de malezas en la producción de sandía orgánica tropical (Alternatives for weed management in tropical organic watermelon production).

Proceedings of the Interamerican Society for Tropical Horticulture (In press) (Abstract).

Kleinhenz, M.D., A. Wszelaki, S. Walker, S. Ozgen, and D. Francis 2006. Vegetable crop yield and quality following differential soil management (compost versus no compost application) in transitional- and certified-organic systems in Ohio. *HortScience* 41:998.

Deza-Durand, K., A. Wszelaki, L. Orellana, and C. Harper. 2006. Postharvest quality of pigeon pea (*Cajanus cajan* (L.) Millsp). Proceedings of the Interamerican Society for Tropical Horticulture (In press).

Deza-Durand, K., A. Wszelaki, and C. Harper. 2006. Effect of modified atmosphere packaging on quality of pigeon pea (*Cajanus cajan*). 2006 IFT Annual Meeting Technical Program Book of Abstracts, p.157.

Wszelaki, A.L., J.F. Delwiche, S.D. Walker, R.E. Liggett, S.A. Miller, and M.D. Kleinhenz 2005. Sensory evaluation of six varieties of organically grown edamame-type soybean. *HortScience* 40:1130.

Wszelaki, A.L., J.F. Delwiche, S.D. Walker, R.E. Liggett, and M.D. Kleinhenz 2005. Sensory quality ratings and mineral and glycoalkaloid concentrations in organically and conventionally grown redskin potatoes (*Solanum tuberosum*). *HortScience* 40:1118-1119.

Wszelaki, A.L., S.A. Miller, D.J. Doohan, K.J. Amisi, B. McSpadden Gardener, and M.D. Kleinhenz 2005. Fertility and weed management effects on crop quality and disease variables in a transitional-organic processing cabbage and tomato system. *HortScience* 40:1093.

Wszelaki, A.L., K. Deza-Durand, and C. Harper 2005. Postharvest physiology and quality of pigeon pea (*Cajanus cajan* (L.) Millsp.). *HortScience* 40:1030.

Wszelaki, A.L. and D.J. Doohan 2003. Flame control for weed management in cabbage and tomatoes. *HortScience* 38:770.

Wszelaki, A.L. and D.J. Doohan 2003. Comparing weed communities on organic and conventional tomato farms across Ohio. *HortScience* 38:768.

Wszelaki, A.L. and E.J. Mitcham 1999. Elevated oxygen atmospheres as a decay control alternative on strawberry. *HortScience* 34:514-515.

## **OTHER PUBLICATIONS**

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Wszelaki, A.L., K.J. Amisi, S.A. Miller, B.B. McSpadden Gardener, D.J. Doohan, and M.D. Kleinhenz 2007. Soil and weed management tactics have differential effects on tomato disease, yield and quality variables in a Midwest transitional-organic system (In preparation).

Deza-Durand, K.M., C. Harper, and A.L. Wszelaki 2007. Modified atmosphere packaging of pigeon pea. (In preparation).

Wszelaki, A.L., S. Ben-Yehoshua and E.J. Mitcham 1999. Do high oxygen atmospheres control postharvest decay of fruits and vegetables? *Perishables Handling Quarterly* 99:22-25.

## **PROFESSIONAL PRESENTATIONS**

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2007, ASHS conference, Scottsdale, AZ

*Poster Presentation*

Sensory characteristics of pigeon pea pods and seeds following storage in modified atmosphere Packaging

*Oral presentation*

Flame weeding: The history, principles and practice

2007, The University of Tennessee Extension Lawrence Co. Grower Meeting, Lawrenceburg, TN

*Oral presentation*

- Producing healthy greenhouse transplants  
 2007, The University of Tennessee Extension Lincoln Co. Grower Meeting, Fayetteville, TN  
*Oral presentation*  
 Lincoln Co. Vegetable Production Updates
- 2007, The University of Tennessee Extension Knox Co. Sweet Corn School, Knoxville, TN  
*Oral presentation*  
 Sweet corn quality: From field to table
- 2007, The University of Tennessee Extension Shelby Co. Organic Field Day, Millington, TN  
*Oral presentation*  
 Growing more dollars: Vegetable marketing
- 2007, Farm to School Farm Production, Marketing and Financial Planning Workshop, Rogersville, TN  
*Oral presentation*  
 Production planning: Growing more out of your season
- 2007, Summer Celebration Field Day, West Tennessee Research and Education Center, The University of Tennessee Institute of Agriculture, Jackson, TN  
*Oral presentation*  
 Organic Tips in the Kitchen Garden
- 2007, Steak and Potatoes Field Day, Plateau Research and Education Center, The University of Tennessee Institute of Agriculture, Crossville, TN  
*Oral presentation*  
 Bi-color, synergistic sweet corn and slicing tomato field trials
- 2007, Tobacco, Beef and More Field Day, Highland Rim Research and Education Center, The University of Tennessee Institute of Agriculture, Springfield, TN  
*Oral presentation*  
 Bicolor sweet corn varieties to keep your customers coming back
- 2007, Tennessee State University Small Farm Expo, Ashland City, TN  
*Oral presentation*  
 Tomato and Pepper Variety Selection
- 2006, ASHS conference, New Orleans, LA  
*Poster presentation*  
 Alternatives for pest management in a tropical organic watermelon production system  
*Oral presentation*  
 Vegetable crop yield and quality following differential soil management (compost versus no compost application) in transitional- and certified-organic systems in Ohio
- 2005, Organic Agricultural Consortium Meeting, Wooster, OH  
*Oral presentations*  
 Diseases management in organic vegetables: Alternatives for tomatoes  
 Soil and Weed Management Tactics Have Differential Effects on Tomato, Cabbage, and Weed Growth, Disease, Yield, and Quality Variables in a Midwest Transitional Organic System  
 Sensory quality ratings and mineral and glycoalkaloid concentrations in organically and conventionally grown redskin potatoes (*Solanum tuberosum*)
- 2005, ASHS conference, Las Vegas, NV  
*Oral presentations*  
 Sensory evaluation of six varieties of organically grown edamame-type soybean  
 Sensory quality ratings and mineral and glycoalkaloid concentrations in organically and conventionally grown redskin potatoes (*Solanum tuberosum*)  
 Fertility and weed management effects on crop quality and disease variables in a transitional-organic processing cabbage and tomato system  
*Poster presentation*  
 Postharvest physiology and quality of pigeon pea (*Cajanus cajan* (L.) Millsp.)
- 2005, University of Puerto Rico, Department of Crop Protection, Mayagüez, PR  
*Invited Seminar*  
 Tropical postharvest pathology: The challenges, the culprits and the solutions
- 2004, Mustard Seed Market and Café, Fairlawn, OH  
*Organized and facilitated Organic Farming Lecture Series between a local organic market and OSU*

- researchers*
- 2003, ASHS conference, Providence, RI  
*Oral presentations*  
 Flame control for weed management in cabbage and tomatoes  
 Comparing weed communities on organic and conventional tomato farms across Ohio
- 2003, Ohio Farm Science Review, London, OH  
*Oral presentation*  
 Organic vegetable production
- 2003, Organic Food and Farming Education and Research (OFFER) Field Day, Wooster, OH  
*Oral presentations*  
 Alternatives for foliar disease control of organic fresh-market tomatoes  
 Flame control for weed management in vegetable crops  
 Vegetable cover crop transition experiment
- 2003, The Ohio State University, Department of Horticulture and Crop Science Seminar Series  
*Invited Seminar*  
 Organic vegetable research at the OARDC
- 2003, 24<sup>th</sup> Annual Ohio Ecological Food and Farming Association Conference, Johnstown, OH  
*Facilitated Horticulture Workshop*  
*Oral presentations*  
 Tomato-cabbage cover crop transition experiment  
 Hot water treatment of organic vegetable seed to eradicate plant pathogens
- 2002, Organic Food and Farming Education and Research (OFFER) Field Day, Wooster, OH  
*Oral presentations*  
 Disease management alternatives for organic tomatoes  
 Flame control for weed management in cabbage and tomatoes
- 2002, OFFER Stakeholder Meeting, Wooster, OH  
*Oral presentation*  
 Revitalizing small and mid-size farms: Organic research, education, and extension
- 2002, Geauga County Veggie School, Middlefield, OH  
*Oral presentation*  
 Trying to control bacterial leaf spot on peppers
- 2001, ASHS conference, Sacramento, CA  
*Poster presentation*  
 Postharvest biological control of gray mold on strawberry
- 1999, ASHS conference, Minneapolis, MN  
*Oral presentation*  
 Elevated oxygen atmospheres as a decay control alternative on strawberry
- 1998, Gordon Research Conference, Plymouth, NH  
*Poster presentation*  
 Pesticide alternatives to control *Botrytis cinerea* in postharvest handling of strawberry

## **LABORATORY EQUIPMENT EXPERIENCE**

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Gas Chromatograph  
 Spectrophotometer  
 Leaf Area Meter  
 Leaf CO<sub>2</sub> and H<sub>2</sub>O Analyzer  
 Centrifuge  
 Refractometer  
 Colorimeter  
 Penetrometer  
 Flow Meter  
 Titrator  
 Controlled Atmospheres  
 Hot Water/ Hot Air Systems for pathogen control

## **COMPUTER SKILLS**

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Microsoft FrontPage  
Microsoft PowerPoint  
Microsoft Excel  
Microsoft Word  
Adobe Acrobat Professional  
Adobe Photoshop  
SigmaPlot  
SAS

## **SCHOLARSHIPS AND AWARDS**

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1998-2000, Pearl D. and Royce S. Bringham Fellowship, University of California, Davis  
1996-1997, Edward J. Wickson Memorial Fellowship, University of California, Davis  
1996, Young Botanist Award, Botanical Society of America  
1996, Arts & Sciences Award for Excellence in Scholarship, The Ohio State University  
1996, OSU President's Salute to Undergraduate Academic Achievement, The Ohio State University  
1995-1996, Louis G. Berstein Memorial Scholarship, The Ohio State University  
1995-1996, Undergraduate Research Scholarship, The Ohio State University  
1993-1996, Phi Kappa Phi Honorary, The Ohio State University  
1992-1996, University Scholarship, The Ohio State University  
1992-1996, Ohio Academic Scholarship, Ohio Board of Regents  
1992, Ohio Association of Public School Employees (OAPSE) Scholarship  
1992, Ohio State University Alumni Scholarship, Medina County Alumni Chapter

## **COMMUNITY SERVICE**

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### *University Activities*

2007-Present, Weed Control and Pest Management Working Group, Secretary, ASHS  
2006, Conference Scientific Program Co-chair, ISTH  
2005-2007, Graduate Studies Committee, Member, UPRM  
2005-2007, Library Committee, Member, UPRM  
1998-2000, Pomology Graduate Student Association, Treasurer, UC Davis  
1998-1999, Department of Pomology Executive Committee, Graduate Student Representative, UC Davis  
1998-1999, Plant Biology Graduate Group Student Association, Representative, UC Davis  
1997-1998, Plant Biology Graduate Student Mentor, UC Davis  
1993-1996, HELIX Biological Sciences Honorary, Treasurer, OSU

### *Civic Activities*

2005-2007, Associate Leader, Venturing Crew 277, Boy Scouts of America, Mayagüez, PR  
2001-2004, Hospice of Wayne County, Volunteer, Wooster, OH  
1999-2001, Peer Counselor and Group Facilitator, UC Davis Peer Counseling Center, Davis, CA  
1996, Pater Noster House, Volunteer, Columbus, OH

## **PROFESSIONAL MEMBERSHIPS**

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1999-Present, American Society of Horticultural Science (ASHS)  
2005-Present, Interamerican Society for Tropical Horticulture (ISTH)  
2007-Present, International Society of Horticultural Science (ISHS)