

## **Tanya M. Quist**

Department of Horticulture and Landscape Architecture  
625 Agriculture Mall Dr. Purdue University  
West Lafayette, IN 47907  
Email: tqquist@purdue.edu Phone: (765) 409-4741

### EDUCATION:

1999-2004 Ph.D. Purdue University. (Plant Physiology) Dr. RJ Joly / Dr. RA Bressan  
1995-1998 M.S. Brigham Young University. (Horticulture) Dr. C F Williams  
1991-1995 B.S. Brigham Young University. (Horticultural Science)

### TEACHING EXPERIENCE:

1/10-present Dean's Scholar research mentor.  
HORT201 Honors; HORT499 Research  
➤ Directed undergraduate research projects in plant propagation.  
Michael Baird, Dean's scholar - Vegetable crops research  
Landon Young, Senior in Landscape Architecture – Grafting

1/10-5/10 Lecturer (Plant Propagation)  
➤ Taught principles of plant growth and reproduction.  
➤ Developed teaching materials and implemented new technology in and out of the classroom to facilitate student learning (included presentations, handouts, online assessments and tutorials via Blackboard (an online learning environment) and quizzes via CPS (classroom performance system).  
➤ Developed research exercises for labs.  
➤ Trained students in use of propagation techniques including seed, cutting, grafting and tissue culture propagation.  
➤ Trained graduate teaching assistants.  
➤ Evaluated student learning.

8/09–12/09 Lecturer (Woody Landscape Plants)  
➤ Taught botanical classification of 240 woody landscape plants  
➤ Described environmental adaptation and landscape use of woody ornamentals.  
➤ Developed maps of plant groups based on environmental adaptation and landscape use.  
➤ Developed other teaching materials including presentations, lab exercises, quizzes and exams to facilitate student learning.  
➤ Trained undergraduate teaching assistants.

1/09-5/09 Lecturer (Plant Propagation)  
1/08-5/08 Lecturer (Plant Propagation) - as described above.

8/03-12/03 Invited Lecturer (Plant Physiology) – “Regulation of Plant Water Relations”

8/03-12-03 Invited Lecturer (Woody Landscape Plants) “Classification of Woody Plants”

8/01-12/01 Graduate Teaching Assistant (Introduction to Plant Physiology)  
8/02-12/02 Graduate Teaching Assistant (Introduction to Plant Physiology)  
➤ Taught principles and techniques of plant physiology for lab sections.  
➤ Designed inquiry-based research projects for undergraduate student research aimed at determining the role and interactions of plant growth regulators on plant physiological responses under abiotic stresses.  
➤ Directed and mentored students in implementing independent research.  
➤ Assessed learning (graded assignments, conducted review sessions).

- 8/96-12/96 Graduate Teaching Assistant (Plant Growth and Reproduction)  
 8/97-12/97 Graduate Teaching Assistant (Plant Growth and Reproduction)  
 ➤ Taught principles and techniques of plant propagation.

### AWARDS AND HONORS:

- 1999-2004 USDA Fellowship (\$64,000)  
 2003 Outstanding Graduate Student Teacher

### RESEARCH EXPERIENCE:

- 1/05 – 5/05 Postdoctoral Research Fellow - Center for Plant Environmental Stress Physiology  
 Purdue University, West Lafayette 47907 PI: Dr. R. A. Bressan  
 ➤ Functional genomics study to investigate the role of lipids as signals in guard cell regulation under abiotic stress (salt, drought and temperature).
- 8/99-12/04 Graduate Research Fellow - Dept. of Horticulture and Landscape Architecture  
 Purdue University West Lafayette, IN 47907 PI: Dr. R. J. Joly  
 ➤ Whole plant study to determine the physiological function of genes regulating water transport under drought and salinity stress in *Arabidopsis thaliana*.
- 8/95 – 8/98 Graduate Research Assistant – Dept. of Plant and Animal Sciences  
 Brigham Young University Provo, UT 84058 PI: Dr. C. F. Williams  
 ➤ Field research to determine the impact of water quality on growth, ion content and horticultural quality of woody ornamental trees and shrubs.

### RELEVANT WORK EXPERIENCE:

- 1/92-5/94 Undergraduate Researcher in Taxonomy  
 Monte L. Bean Life Science Museum (Stanley L. Welch Herbarium)  
 Supervisor: Dr. Stanley Welch  
 Duties:  
 ➤ Identified Utah native plants.  
 ➤ Managed plant collections  
 ➤ Organized plant exchanges with national Herbaria
- May 1993 – Aug 1993 Undergraduate Researcher in Taxonomy  
 BYU Dept. of Botany and Range Science  
 Supervisor: Dr. Howard Stutz  
 Duties:  
 ➤ Curation of Herbarium research collections (*Atriplex* spp.)

### PROFESSIONAL AFFILIATIONS/ MEETINGS:

- 06/2010 Indiana Master Gardener State Conference Grafting Workshop  
 01/2010 Member National Science Teachers Association  
 10/2007 Invited presentation – Michigan State University.  
 10/2006 Invited presentation – Brigham Young University.  
 01/2005 Invited presentation - University of Chicago.  
 12/2004 HLA Departmental Seminar - Dissertation defense.  
 10/2003 Invited Lecturer Purdue University (Woody Landscape Plants)  
 09/2003 Invited Lecturer Purdue University (Intro. Plant Physiology)  
 07/2002 Poster-Gordon Conference on Salinity, Oxford, UK  
 07/2000 Poster - ASPB National Meeting Rhode Island, USA.  
 05/2000, 2001, 2002, 2004 Poster - Research Retreat, Purdue University.  
 1999-2004 Member American Society of Plant Biologists.

PUBLICATIONS:

- Tanya M. Quist, R. J. Joly, R. A. Bressan. (2010). Identification of a novel locus in *Arabidopsis thaliana* affecting ABA sensitivity. (*in prep.*)
- Tanya M. Quist, Irina Sokolchik, Huazhong Shi, Robert J. Joly, Ray A. Bressan, Albino Maggio, Meena Narsimhan, Xia Li. (2009). HOS3, an ELO-like Gene, Inhibits Effects of ABA and Implicates a S-1-P/Ceramide Control System for Abiotic Stress Responses in *Arabidopsis thaliana*. *Molecular Plant* 2 (1):138-151.
- Tanya M. Quist December (2004). Functional Characterization of Abiotic-Stress Mutants in *Arabidopsis thaliana* Using a Molecular Genetic and Physiological Approach. Ph.D. Dissertation. Purdue University, West Lafayette, Indiana.
- Shisong Ma, Tanya Quist, Alexander Ulanov, Robert Joly, Hans Bohnert. (2004). Loss of TIP1;1 aquaporin in *Arabidopsis* leads to cell and plant death. *Plant Journal* 40(6):845-59.
- Bruno Ruggiero, Hisashi Koiwa, Yuzuki Manabe, Tanya M. Quist, Gunsu Inan, Franco Saccardo, Robert J. Joly, Paul M. Hasegawa, Ray A. Bressan, and Albino Maggio (2004) Uncoupling the Effects of Absciscic Acid on Plant Growth and Water Relations. Analysis of *sto1/nced3*, an Absciscic Acid-Deficient but Salt Stress-Tolerant Mutant in *Arabidopsis*. *Plant Physiology* 136:3134-3147.
- Inan, Günsu, Hui Zhang, Pinghua Li, Zenglan Wang, Ziyi Cao, Changqing Zhang, Tanya M. Quist, S. Mark Goodwin, Jianhua Zhu, Huazhong Shi, Barbara Damsz, Tarif Charbaji, Qingqiu Gon, Shisong Ma, Mark Fredricksen, Matthew A. Jenks, David Rhodes, Paul Hasegawa, Hans J. Bohnert, Robert J. Joly, Ray A. Bressan, Jian-Kang Zhu. (2004). Salt Cress: A Halophyte and Cryophyte *Arabidopsis* Relative Model System (ARMS) and Its Applicability to Molecular Genetic Analyses of Growth and Development of Extremophiles. *Plant Physiology* 135: 1718-1737.
- Tanya M. Quist, Shuji Yokoi, Ray A. Bressan, Paul M. Hasegawa and Robert J. Joly (2004). Differential regulation of plasma membrane aquaporin transcripts in *Arabidopsis* in response to environmental stress: Proposed roles for aquaporins in regulating plant water balance. *Recent Research Developments in Biochemistry* Vol. 5. Editor S.G.Pandalai.
- Tanya M. Quist, C. Frank Williams. (1999). Irrigation water quality and ion balance in leaves of deciduous ornamental trees. *Journal of Plant Nutrition* 22(6):1011-1019.
- Tanya M. Quist, C. Frank Williams, M. L. Robinson (1999). Effects of varying water quality on growth and appearance of landscape plants. *Journal of Environmental Horticulture* 17(2):88-91.

REFERENCES:

Dr. Matt Jenks, Professor  
314 HORT Purdue University  
Dept. of Horticulture and Landscape Architecture  
West Lafayette, IN 47907  
Phone: (765) 494-1332  
[jenksm@purdue.edu](mailto:jenksm@purdue.edu)

Dr. Robert J. Joly, Professor and Head  
209 HORT Purdue University  
Dept. of Horticulture & Landscape Architecture  
West Lafayette, IN 47907  
Phone: (765) 494-6997  
[joly@purdue.edu](mailto:joly@purdue.edu)

Dr. Natalia Doudareva, Distinguished Professor and Wickersham Chair of Excellence in Agricultural Research.  
112 HORT Purdue University  
Dept. of Agronomy  
West Lafayette, IN 47907  
Phone: (765) 494-1325  
[dudareva@purdue.edu](mailto:dudareva@purdue.edu)

Dr. Ray A. Bressan, Distinguished Professor School of Agriculture.  
318 HORT Purdue University  
Dept. of Horticulture & Landscape Architecture  
West Lafayette, IN 47907  
Phone: (765) 494-1336  
[bressan@purdue.edu](mailto:bressan@purdue.edu)