

CURRICULUM VITAE

THOMAS JAMES ORTON

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EDUCATION

Ph.D. 1979, Michigan State University, Botany and Genetics, Co-Advisors P. S. Carlson and W. Tai

B.S. 1973, Michigan State University, Biology (With Honors)

PROFESSIONAL EMPLOYMENT HISTORY

2004 – Present, EXTENSION SPECIALIST/PROFESSOR, Rutgers Agricultural Research and Extension Center (Bridgeton, NJ), Department of Plant Biology and Pathology; Full Faculty Member of the Plant Biology Graduate Program; Faculty Associate of the Rutgers Food Innovation Center, Cook College and School of Environmental and Biological Sciences, Rutgers Cooperative Extension (RCE)/NJAES, Rutgers University; research, teaching, and extension in plant sciences, with special emphasis on genetics/breeding, value-added product development in vegetable crop species, and new systems development for enhanced environmental impacts and profitability.

2002 – 2004, EXTENSION SPECIALIST and INTERIM AGRICULTURAL AND RESOURCE MANAGEMENT AGENT, ESSEX AND PASSAIC COUNTIES, (NJ), RCE, Departments of Extension Specialists and Plant Biology and Pathology, Rutgers University. Extension education in agricultural production and environmental sustainability; training of Master Gardeners.

1995 – 2002, CHAIR, DEPARTMENT OF EXTENSION SPECIALISTS, ASSISTANT DIRECTOR OF EXTENSION, AND EXTENSION SPECIALIST WITH TENURE, RCE, Rutgers University. Represented the department in all aspects of college and university affairs. Guided activities of ~40 faculty members and ~25 staff members with regard to university policies and procedures. Managed departmental budget; oversaw HR issues for departmental faculty and staff, including performance reviews, promotions, and recruitment; coordinated the vehicle pool (purchasing, maintenance, assignments, transitions) for RCE, approximately 75 units.

1994 – 1996, PRINCIPAL CONSULTANT, Agrisynnergies, Inc., Aptos, CA; Technical and strategic support to agribusiness clients in biotechnology, seed production, and the development of international partnerships in perishable commodities.

1992 - 1994, SENIOR DIRECTOR, PRODUCT DEVELOPMENT, DNA Plant Technology Corporation, Cinnaminson, NJ; Directed programs in applied agricultural research, seed production, post harvest biology, package engineering, and food science in connection with the development of value-added fruit and vegetable products; Managed contractual programs with universities and major U.S. and international companies. Supervised 22 employees and oversaw an annual operating budget of \$2.6 million.

1986 – 1992, DIRECTOR, WESTERN R & D STATION, Watsonville, CA, DNA Plant Technology Corporation, Cinnaminson, NJ; Directed programs in applied agricultural research, seed production, and the supply of vegetable crop raw materials for the company's business operations. Managed contractual programs with universities and major U.S. and international companies. Supervised 10 employees and oversaw an annual operating budget of \$1.2 million.

1985 – 1986, DIRECTOR OF RESEARCH, Heartland Technologies, Inc., Boulder, CO; co-founded a biotechnology startup company; recruited a management team and a Board of Directors, co-authored a business plan, and participated in numerous presentations to potential investors.

1983 – 1985, ADJUNCT PROFESSOR, Department of Vegetable Crops, University of California, Davis.

1982 – 1985, GROUP LEADER, Somatic Cell Genetics Group, Applied Genetics Laboratory, Agrigenetics Corporation, Boulder, CO; commercial applications of biotechnology in vegetable crop improvement. Managed 8 employees and an annual operating budget of \$850,000.

1981 – 1982, CONSULTANT, Agrigenetics Research Corporation (ARC); development and management of partnerships between ARC and university research programs.

1978 – 1982, ASSISTANT PROFESSOR, Department of Vegetable Crops, and GENETICIST in the Agricultural Experiment Station, University of California, Davis. Full Member of Genetics and Plant Physiology Graduate Programs. Teaching and research appointment. Conducted research on genetics, breeding, and cell/tissue culture in *Apium* and *Brassica*. Taught “Plant Breeding” and “Advanced Laboratory Methods”. Full endorsement for grant of tenure in the 1982 UCD “Minitenure” process.

1974 – 1978, GRADUATE ASSISTANT, Michigan State University, Teaching Assistantships for 2.5 years, Research Assistantship for 1.5 years; taught recitation and

laboratory sections in General Biology 210, 211, and 212, and recitation sections in General Genetics 200.

TEACHING

- Classroom Teaching – Rutgers University

- COURSE INFORMATION -								- COURSE EVALUATION -					
								Evaluation Responses	Teaching Effectiveness (Max = 5)		Course Quality (Max = 5)		
S/ Yr	Course Title	Number	Cr	MOI	Aud	Resp	Enrl		Instructor	Dept Mean	Instructor	Dept Mean	
S17	Vegetable Production and Marketing	11:776:200	3	Guest lecture	UG students	Guest lecture	26						
S17	Plant Breeding	11:776:406	4	Lec + Lab	UG students	40%	13						
S17	Advanced Plant Breeding	16:765:528	4	Lec + lab	Grad students	40%	6						
S16	Vegetable Production and Marketing	11:776:200	3	Guest lecture	UG students	Guest lecture	25						
S16	Plant Breeding	11:776:406	4	Lec + Lab	UG students	40%	14						
S16	Advanced Plant Breeding	16:765:528	4	Lec + lab	Grad students	40%	10						
S15	Plant Breeding	11:776:406	4	Lec + Lab	UG students	40%	12						
S15	Advanced Plant Breeding	16:765:528	4	Lec + lab	Grad students	40%	8						
S14	Vegetable Production and Marketing	11:776:200	3	Guest lecture	UG students	Guest lecture	30						
S14	Plant Breeding	11:776:406	4	Lec + Lab	UG Students	50%	15	8	4.88	3.94	5.00	3.88	
S14	Advanced Plant Breeding	16:765:528	4	Lec + Lab	Grad students	50%	2						
F13	Special Problems in Plant Biology and Pathology	11:776:900	3	Mentoring	UG student	Mentoring and grading	1						
S13	Vegetable Production and Marketing	11:776:200	3	Guest lecture	UG Students	Guest lecture	35						

S13	Special Problems in Plant Biology and Pathology	11:776:900	2	Mentoring	UG student	Mentoring and grading	1					
S13	Plant Breeding	11:776:406	3	Lec + Lab	UG Students	50%	17	15	4.53	4.56	4.33	4.59
S13	Advanced Plant Breeding	16:765:528	3	Lec + Lab	Grad students	50%	3	3	4.53	4.41	4.33	4.30
S12	Vegetable Production and Marketing	11:776:200	3	Guest lecturer	UG students	Guest lecturer	35					
S12	Plant Breeding	11:776:406	3	Lec + Lab	UG students	60%	8					
S12	Advanced Plant Breeding	16:765:528	3	Lec + Lab	Grad students	60%	8					
S11	Vegetable Production and Marketing	11:776:200	3	Guest Lecturer	UG students	Guest lecturer	35					
S11	Plant Breeding	11:776:406	3	Lec + Lab	UG students	50%	11	11	4.55	4.33	4.27	4.26
S11	Advanced Plant Breeding	16:765:528	3	Lec + Lab	Grad students	50%	8					
S10	Vegetable Production and Marketing	11:776:200	3	Lec	UG students	Guest lecturer	30					
S10	Plant Breeding	11:776:406	3	Lec + Lab	UG students	50%	10	6	4.67	4.52	4.50	4.40
S10	Advanced Plant Breeding	16:765:528	3	Lec + Lab	Grad students	50%	10	9	4.65	4.49	4.63	4.53
S09	Vegetable Production and Marketing	11:776:200	3	Lec	UG students	Guest lecturer	20					
S09	Advanced Plant Breeding	16:765:528	3	Lec + Lab		50%	17	15	4.60	4.37	4.60	4.53
S08	Advanced Plant Breeding	16:765:528	3	Lec + Lab		50%	15	14	4.50	4.43	4.21	4.41
S07	Advanced Plant Breeding	16:765:528	3	Lec + Lab		50%	11	8	4.13	4.52	3.63	4.41

S06	Advanced Plant Breeding	16:765:528	3	Lec + Lab		50%	10	6	3.83	4.46	3.50	4.37
S05	Advanced Plant Breeding	16:765:528	3	Lec		50%	15	11	5.00	4.62	4.70	4.60
S04	Nursery Crop Production	11:776:439	3	Lec	unm	Fac Coor	21					
S04	Advanced Plant Breeding	16:765:528	3	Lec		40%	22	16	3.58		3.73	
S03	Advanced Plant Breeding	16:765:528	3	Lec		40%	14					
F01	Perspectives on Ag and Env	11:015:101	2	Lec		100%	22					
F00	Perspectives on Ag and Env	11:015:101	2	Lec		100%	26	21	4.18			
S00	Commercialization of Biotech	11:015:419	3	Lec		100%	12					
F99	Perspectives on Ag and Env	11:015:101	2	Lec		100%	24	18	4.63			
S99	Commercialization of Biotech	11:015:450	3	Lec		50%	22					
F98	Perspectives on Ag and Env	11:015:101	2	Lec		50%	23					
S98	Modern Crop Prod	11:776:200	3	Lec		Guest Lec	16					
S98	Commercialization of Biotech	11:015:450	3	Lec		50%	9					
F97	Perspectives on Ag and Env	11:015:101	2	Lec		50%	26					

- **Classroom Teaching - University of California, Davis**

VC 330 - Advanced Plant Breeding, 100% responsibility, 3 credits, enrollment 21, Fall 1981

VC 230 - Laboratory Methods in Plant Science Research, 50% responsibility, 2 credits, enrollment 15, Winter 1980, 1981

- Authored four laboratory study guides, 10 - 15 pp each

PS 113 - Plant Breeding, 100% responsibility, 4 credits, average enrollment 30, Spring 1980, 1981, 1982

- Developed a new laboratory and supporting materials, 12 sessions, average 5 pages per session
- Authored a new course syllabus and study guide, 45 pp
- Authored a course primer on genetic principles, 24 pp

• **Graduate Students – Rutgers University**

Donderalp, Veysel 2015-present, M.S. Plant Biology

Paul, Jennifer 2016-present, M.S. Plant Biology

*Thesis Committee

Byrnes, David, Ph.D. Plant Biology 2017 (projected)

Finn, Daniel, M.S. Plant Biology 2016

Leadbetter, Clayton, Ph.D. Plant Biology 2017 (projected)

Reichert, William, Ph.D. Plant Biology 2017 (projected)

Satch, Chris, Ph.D. Plant Biology 2018 (projected)

• **Graduate Students – University of California, Davis**

*Thesis Advisor

Arus, Pedro 1978 - 1983, Ph.D. Genetics

Awoleye, Funsho 1978 - 1979, Genetics; transferred to University of Missouri

Browers, Marcia 1979 - 1981, M.S. Genetics

Dhillon, Narinderpal 1981 - 1983, Genetics transferred to Punjab Agricultural University

Ehlers, Jeffrey 1979 - 1981, M.S. Plant Physiology

Hatridge-Esh (aka Hedridge-Esh), Kathy 1980 - 1981, DNF

Holton, Melissa 1979 - 1982, Ph.D. Genetics

Hulbert, Scot 1980 - 1982, M.S. Genetics

Lassner, Michael 1980 - 1983, Ph.D. Genetics

Morss, Susan 1979 - 1981, M.S. Plant Physiology

Rabin, Jack 1980 - 1982, M.S. Plant Science

Riordan, Cathy 1979 - 1982, DNF

Shields, Clark, 1979-1982, M.S. Plant Physiology

*Thesis Committee

Berger, David, Ph.D. Plant Physiology 1981

Croughan, Timothy, Ph.D. Genetics 1981

Fuji, Dwight, M.S. Plant Physiology 1982
Medina-Filho, Herculano, Ph.D. Genetics 1980
Pearson, Robert, Ph.D. Genetics 1982

- **Postgraduate Scientists – Rutgers University**

Pan, Gang, Ph.D., Visiting Scientist from Jiangsu Technical University, China,
2011 (6 months)

- **Postgraduate Scientists – University of California, Davis**

Murata, Minoru, Ph.D., Postdoctoral Associate, 1979 - 1981
Pressman, Etan, Ph.D., Visiting Scientist from the Agricultural Research
Organization, Israel, 1980 - 1981
Singh, Hari, Ph.D., Visiting Scientist from Punjab Agricultural University, India,
1979 – 1980

- **Undergraduate Student Internship Sponsorships – Rutgers University**

Joseph (Zeke) Rucker – Summer 2009
C. J. Ruch – Summer 2010, Fall 2013
Jenny Huang (w/ D. Ward) – Summer 2010
Daniel Obester – Summer 2012
Ye Rin Lim – Summer 2012, Spring 2013
Adrian Cardona (w/ D. Schaffner of Rutgers Food Innovation Center) – Summer 2013
Jessica Murtagh – Summer 2013
Kasturi Shanker (w/ D. Schaffner of Rutgers Food Innovation Center) – Summer 2014
Edwin Xue (w/ D. Schaffner of Rutgers Food Innovation Center) – Summer 2015

- **Pre-college Students – Rutgers University**

Pugh, William, High School Honors Student Project: “Molecular and Horticultural
Characteristics of *Cry+* and *Cry-* Varieties of Eggplant”, 2003 – 2004

- **Course Enhancement – Rutgers University**

Collaborated on the plan and implementation of a new laboratory course for “Plant
Breeding” (16:765:528); Spring 2014
Production of video “Making Tomato Crosses” disseminated on YouTube for Plant
Breeding and Advanced Plant Breeding, Spring 2010

- **Instructional Development – Rutgers University**

Cooperative Institutional Training Institute (CITI) Basic Course on Human Subjects,
November 24-25, 2015

Rutgers Workshop of Evolution in the Classroom, February 8, 2006

Rutgers Workshop on E-Companion, January 10, 2005

Extension Workshop on Impact Assessment, June 20, 2003

- **Extension Teaching – Rutgers University**

Class/Course/Presentation Information							Class/Course/Presentation Evaluation		
							Evaluation Responses	Teaching Effectiveness (Max = 5)	Program Content (Max = 5)
Date	Program/Event/ Location	Title of Presentation	Program Duration	Audience	Resp.	Enrolled		Instructor Mean	Instructor Mean
11/2/16	Monmouth County Master Gardener Training, Freehold, NJ	Plant mating systems and implications for pollination	60 min	Master Gardener Trainees	Lecture	85			
8/24/16	RCE South NJ Vegetable Twilight Meeting, RAREC	Tomato breeding and mother stalk asparagus research at RAREC	20 min	Commercial growers, extension professionals	Lecture and demonstration	60			
6/28/16	WDEL interview on Susan Monday Show	'Rutgers 250' and breeding for tomato flavor	5 min	Delaware, general	Interview				
3/10/16	CNN TV interview on Michael Smerkonish segment	'Rutgers 250' and breeding for tomato flavor	5 min	National, general	Interview				
2/26/16	Central NJ Vegetable Growers Meeting, Freehold, NJ	Development and release of the 'Rutgers 250' tomato variety	45 min	Commercial growers, extension professionals	Lecture	125			
2/20/16	Morris County Master Gardener Training, Somerset, NJ	Development and release of the 'Rutgers 250' tomato variety	60 min	Master Gardener Trainees	Lecture and demonstrations	45			
2/11/16	Passaic County Master Gardener Training, Wayne, NJ	Vegetable Gardening	3 hrs	Master Gardener Trainees	Lecture and demonstrations	32			
2/10/16	Atlantic Coast Agricultural Convention and Educational Program, Atlantic City, NJ	Development and release of the 'Rutgers 250' tomato variety	30 min	Commercial growers, extension professionals	Lecture	70			

2/10/16	Atlantic Coast Agricultural Convention and Educational Program, Atlantic City, NJ	The NJAES exotic pepper breeding program	20 min	Commercial growers, extension professionals	Lecture	60			
2/3/16	Mid-Atlantic Agricultural Convention and Trade Show, Hershey, PA	Applications of the mother stalk growing system for season extension in asparagus	45 min	Commercial growers, extension professionals	Lecture	75			
1/13/16	Annual NJ Processing Tomato Meeting and Technical Program, FIC Bridgeton, NJ	2015 Processing Tomato Breeding Program	25 min	Commercial growers, extension professionals	Lecture	24			
1/13/16	Annual NJ Processing Tomato Meeting and Technical Program, FIC Bridgeton, NJ	2015 Processing Tomato Variety Trial Program	20 min	Commercial growers, extension professionals	Lecture	24			
1/13/16	Annual NJ Processing Tomato Meeting and Technical Program, FIC Bridgeton, NJ	Organizer and Host	4 hrs	Commercial growers, extension professionals	Lectures	24			
12/8/15	Food Technology Training Delegation from Brazil and Columbia; Rutgers Food Innovation Center, Bridgeton, NJ	Opportunities for engineering food products raw materials at the Rutgers Agricultural Research and Extension Center	20 min.	Trainees/food industry professionals from Brazil and Columbia	Lecture and tour	15			
10/12/15	WJLP 'Jersey Matters' television interview aired in the New York, NY market	Rutgers 250 tomato development and release	5 min.	General public	Interview				
9/16/15	WHYY radio interview aired in the Philadelphia, PA market during October 2015	Rutgers 250 tomato development and release	5 min.	General public	Interview				
8/20/15	RCE South NJ Vegetable Twilight Meeting, RAREC	Rutgers 250 tomato development and release	30 min.	Commercial growers, extension professionals	Lecture and demonstration	75			
2/4/15	Atlantic Coast Agricultural Convention and Educational Program, Atlantic City, NJ	Breeding the Jersey tomato	30 min.	Commercial growers, extension professionals	Lecture	75			
1/15/15	Annual NJ Processing Tomato Meeting and Technical Program, FIC Bridgeton, NJ	Processing Tomato Breeding Program	20 min.	Commercial growers, extension professionals	Lecture	21			
1/15/15	Annual NJ Processing Tomato Meeting and Technical Program, FIC Bridgeton, NJ	2014 Processing Tomato Variety Trial Program	20 min.	Commercial growers, extension professionals	Lecture	21			
1/15/15	Annual NJ Processing Tomato Meeting	Organizer and Host	4 hrs.	Commercial growers, extension	Lectures	21			

	and Technical Program, FIC, Bridgeton, NJ			professionals					
1/13/15	Annual Meeting Delmarva Vegetable Growers Association, Harrington, DE	Asparagus Mother Stalk Production	30 min	Commercial growers, extension professionals	Lecture	75			
11/18/14	Visiting delegation from China, RAREC, Bridgeton, NJ	Breeding new varieties of corn and vegetable crops	45 min.	Applied scientists and Academic Administrators	Lecture and tour	18			
11/11/14	Visiting delegation from China, RAREC, Bridgeton, NJ	Breeding new varieties of corn and vegetable crops	45 min.	Applied scientists and Academic Administrators	Lecture and tour	18			
11/07/14	Mid-Atlantic Vegetable Workers Conference, Newark, DE	Breeding processing tomatoes for the Mid Atlantic U.S.	20 min.	Extension Professionals and Applied Scientists	Lecture	25			
9/16/14	Horticulture Committee, Commercial Vegetable Production Recommendations 2015 revisions, RAREC, Bridgeton, NJ	Meeting host; room, food, participation in revision discussions, field tour	4 hours	Extension professional from Penn State, W. VA Univ., Univ. of Delaware, Univ. of Maryland, Virginia Tech	75% with M. Infante-Casella	18			
8/21/14	RCE South NJ Vegetable Twilight Meeting, RAREC, Bridgeton, NJ	Rutgers Fresh Market Tomato Breeding Program	20 min.	Commercial growers, extension professionals	Lecture and demonstration	60			
6/21/14	Continuing Education Program, Mt Cuba Center, Greenville, DE	“Backyard Plant Breeding”	5 hrs.	Continuing education students	Lecture and demonstration	25			
6/11/14	USDA/S-294 Multistate Project Annual Meeting, Chicago, IL	Packaging and Postharvest Research in New Jersey	20 min.	Produce industry representatives, academics	Lecture	25			
3/15/14	Passaic County Master Gardener Training, Wayne, NJ	Vegetable Gardening	3 hrs.	Master Gardener Trainees	Lecture and demonstration	27			
3/11/14	Annual NJ Processing Tomato Meeting and Technical Program, FIC, Bridgeton, NJ	Processing Tomato Breeding Program	20 min.	Commercial growers, extension professionals	Lecture	21			
3/11/14	Annual NJ Processing Tomato Meeting and Technical Program, FIC, Bridgeton, NJ	Organizer and Host	4 hrs.	Commercial growers, extension professionals	Lectures	21			
2/5/14	Atlantic Coast Agricultural Convention and Educational Program, Atlantic City, NJ	Exotic Peppers	20 min.	Commercial growers, extension professionals, government	Lecture; slide set preparation	55			
11/8/13	Mid-Atlantic	Future of	15 min.	Extension	Lecture	25			

	Vegetable Workers Conference, Newark, DE	Commercial Vegetable Production Recommendations in the Mid-Atlantic U.S.		Professionals and Applied Scientists					
11/8/13	Mid-Atlantic Vegetable Workers Conference, Newark, DE	Mother Stalk Asparagus Production for Enhanced Profitability	15 min.	Extension Professionals and Applied Scientists	Lecture	25			
8/12/13	RCE South NJ Vegetable Twilight Meeting, RAREC, Bridgeton, NJ	Mother Stalk Asparagus Harvesting Demonstration	20 min.	Commercial growers, extension professionals	Lecture and demonstration	50			
3/14/13	Passaic County Master Gardener Training, Wayne, NJ	Vegetable Gardening	3 hrs.	Master Gardener Trainees	Lecture and demonstration	28			
2/25/13	Annual NJ Processing Tomato Meeting and Technical Program, FIC, Bridgeton, NJ	Processing Tomato Breeding Program	20 min.	Commercial growers, extension professionals	Organizer and lecture	25			
2/5/13	Atlantic Coast Agricultural Convention and Educational Program, Atlantic City, NJ	Exotic Peppers	20 min.	Commercial growers, extension professionals, government	Lecture; slide set, preparation	50			
7/26/12	American Assoc. of Food Technologists Tour event	Tomato Breeding Field Nursery	30 min.	Food Scientists and Technologists, Chefs	Lecture demonstration	25			
7/12/12	Chinese Academy of Agricultural Sciences Delegation Visit	The Rutgers Tomato Breeding Programs	30 min	CAAS delegation, Rutgers faculty/staff, USDA staff	Lecture demonstration	18			
4/23/12	Campbell Soup Co. "Earth Day" Event	Green outcomes of Plant Breeding	3 hrs.	Campbell Soup Co. employees	Power Point demonstration	100+			
4/19/12	Passaic County Master Gardener Training, Wayne, NJ	Vegetable Gardening	3 hrs.	Master Gardener Trainees	Lecture and demonstration	25			
2/25/12	Annual NJ Processing Tomato Meeting and Technical Program, FIC, Bridgeton, NJ	Processing Tomato Variety Trial Program	4 hrs.	Commercial growers, extension professionals	Organizer and lecture	23			
11/9/11	Mid-Atlantic Vegetable Workers Conference, Newark, DE	Breeding tomatoes for high flavor and visual quality	20 min	Extension Professionals and Applied Scientists	Lecture	25			
3/28/11	Passaic County Master Gardener Training, Wayne, NJ	Vegetable Gardening	3 hrs.	Master Gardener Trainees	Lecture and demonstration	32			
2/13/11	Annual NJ Processing Tomato Meeting and Technical Program, FIC, Bridgeton, NJ	Processing Tomato Breeding Program	4 hrs.	Commercial growers, extension professionals	Organizer and lecture	25			
1/12/11	Atlantic Coast	Tomato	3 hrs.	Commercial	Co-	57			

	Agricultural Convention and Educational Program, Atlantic City, NJ	Session		growers, extension professionals, government	Organizer and two lectures in absentia				
11/9/10	Mid-Atlantic Vegetable Workers Conference, Mt. Holly, NJ	Effects of Sea Solids on Tomato Performance	20 min	Extension Professionals and Applied Scientists	Lecture	18			
2/26/10	Passaic County Master Gardener Training, Wayne, NJ	Vegetable Gardening	3 hrs.	Master Gardener Trainees	Lecture and demonstration	28			
2/4/10	Annual NJ Processing Tomato Meeting and Technical Program, FIC Bridgeton, NJ	Processing Tomato Breeding Program	4 hrs	Commercial growers, extension professionals	Organizer and lecture	25			
1/13/10	Atlantic Coast Agricultural Convention and Educational Program, Atlantic City, NJ	Breeding Tomatoes for Pest Tolerance and Enhanced Profitability	40 min	Commercial growers, extension professionals,	Lecture	150			
11/13/09	Mid-Atlantic Vegetable Workers Conference, Newark, DE	Performance of summer and overwintering onions in New Jersey	20 min	Extension Professionals	Lecture	25			
11/13/09	Mid-Atlantic Vegetable Workers Conference, Newark, DE	Update on progress in New Jersey tomato breeding programs	20 min	Extension Professionals	Lecture	25			
10/5/09	"Jersey Roots, Global Reach", Cousteau Center, Bridgeton, NJ	Improved vegetable varieties and farming methods to sustain agriculture in New Jersey	60 min	General public	Lecture	10			
9/8/09	Master Gardeners Association of Cumberland County Training Session	The Rutgers Food Innovation Center Display Garden	20 min	Master Gardeners	Lecture	60			
8/18/09	RCE South NJ Vegetable Twilight Meeting, RAREC, Bridgeton, NJ	Breeding fresh market tomatoes for better flavor and disease resistance	15 min	Commercial growers, extension professionals, government	Demonstration	60			
2/29/09	Annual NJ Processing Tomato Meeting and Technical Program, FIC Bridgeton, NJ	Processing Tomato Breeding Program	4 hours	Commercial growers, extension professionals	Organizer and lecture	25			
1/19/09	PA Cooperative Extension, Lancaster County, Grower Meeting, New Holland, PA	Mother Stalk Asparagus Production for Season Extension	45 min	Commercial growers, extension professionals, government	Lecture	25			
1/15/09	Vegetable Growers Assoc of NJ Annual Meeting, Atlantic City, NJ	Prospects of the Mother Stalk Growing Method for Asparagus Season Extension	20 min.	Commercial growers, extension professionals, government	Lecture	15			

1/15/09	Vegetable Growers Assoc of NJ Annual Meeting, Atlantic City, NJ	Asparagus Session	2.5 hr	Commercial growers, extension professionals, government	Session Organizer	20			
1/14/09	Vegetable Growers Assoc of NJ Annual Meeting, Atlantic City, NJ	Building a Better Tasting Jersey Tomato	30 min	Commercial growers, extension professionals, government	Lecture	150			
11/6/08	Mid-Atlantic Vegetable Conference, Newark, DE	Prospects for Asparagus Season Extension With The Mother Stalk Growing Method	20 min	Extension Professionals	Lecture	25			
11/6/08	Mid-Atlantic Vegetable Conference, Newark, DE	Genetics and Breeding of FA and SS in Fresh Market Tomatoes to Enhance Flavor	20 min	Extension professionals	Lecture	25			
8/12/08	RCE South NJ Vegetable Twilight Meeting, RAREC, Bridgeton, NJ	Fresh Market Tomato Breeding Program	15 min	Commercial growers, extension professionals, industry reps, government	Demonstration	45			
5/4/08	USDA/S-294 Multistate Project Annual Meeting, Las Vegas, NV	Packaging and Postharvest Research in New Jersey	20 min	Produce industry representatives, academics	Lecture	25			
4/30/08	Cumberland County Community College	Tomato Breeding	40 min	College undergraduates	Lecture and demonstration	25			
4/22/08	RCE South NJ Vegetable Twilight Meeting, RAREC, Bridgeton, NJ	Overwintering Onion Variety Trial	20 min	Commercial growers, extension professionals, government	Lecture and demonstration	45			
2/19/08	Annual NJ Processing Tomato Meeting and Technical Program, RAREC, Bridgeton, NJ	Processing Tomato Breeding Program	4 hr	Commercial growers and extension professionals, NJ and PA	Organizer and lecture	25			
2/14/08	Passaic County Master Gardener Training, Wayne, NJ	Vegetable Gardening	3 hr	Master Gardener Trainees	Lecture and demonstration	28			
11/7/07	Mid-Atlantic Vegetable Conference, Newark, DE	Update on Research and Extension Programs for Value-Added Agriculture	30 min.	Extension professionals and academics	Lecture	30			
10/23/07	Cumberland County Community College	Tomato Breeding	30 min	College undergraduates	Lecture and demonstration	25			
8/30/07	Bridgeton, NJ Rotary Club Monthly Meeting	Contributions by RAREC to South NJ Economy	1 hr	Business and government leaders	Lecture	45			
8/16/07	South NJ RCE Vegetable Twilight Meeting,	Tomato Breeding	15 min	Commercial growers, extension professional	Lecture and demonstration	35			

	RAREC, Bridgeton, NJ			s, government					
4/26/07	Cumberland Regional High School	Tomato Breeding	30 min	High School students	Lecture and demonstration	25			
3/15/07	Passaic County Master Gardener Training, Wayne, NJ	Vegetable Gardening	3 hr	Master Gardener Trainees	Lecture and demonstration	22			
2/7/07	Annual NJ Processing Tomato Meeting and Technical Program, RAREC, Bridgeton, NJ	Processing Tomato Breeding Program	4 hr	Commercial growers and extension professionals, NJ and PA	Organizer and lecture	25			
1/17/07	VGANJ Annual Meeting, Atlantic City	Strategies for Asparagus Season Extension	45 min.	Commercial Growers, extension professionals, government	Lecture	45			
1/17/07	VGANJ Annual Meeting, Atlantic City	Asparagus Session	3 hr	Commercial growers, extension professionals, government	Organizer	45			
4/25/06	RCEVegetable Growers Twilight Meeting, Clayton, NJ	Update on research projects for 2006	20 min.	Commercial growers and extension professionals	Lecture	30			
4/13/06	Cumberland County Community College Field Trip to RAREC	Tomato Life Cycle and Breeding	20 min.	College Students	Lecture and demonstration	22			
3/28/06	RCE Vegetable Growers Twilight Meeting, Vineland, NJ	Value-added garlic for enhanced profitability	20 min.	Commercial growers and extension professionals	Lecture	25			
3/7/06	Beginning Farmer Workshop, RAREC	Specialty Crops	20 min.	Prospective growers, extension professionals, government	Lecture	18			
2/21/06	Annual Processing Tomato Meeting and Technical Program, RAREC	Prospective new processing tomato breeding program	4 hr.	Commercial growers, extension professionals	Total – organizer and speaker	25			
1/10/06	Vegetable Growers Assoc. of NJ/Atlantic City, NJ	New Opportunities for the New Jersey Asparagus Industry	3 hr.	Commercial growers, extension professionals, government	Total: Organizer	50			
10/26/05	NJ Cooperative Association, Buena, NJ	The Food Innovation Center	30 min.	Commercial growers and extension professional	Lecture	60			
9/7/05	UAP Regional Field Day, RAREC	Central Asian Vegetables	20 min.	Commercial growers and extension professional	Lecture + demonstration	45			
2/15/05	RCE Northern NJ Vegetable Growers	Potential New Markets – Selling	20 min	Commercial growers and extension	Lecture	50			

	Meeting, Pittstown, NJ	Vegetables for Health		professional					
10/7/04	Master Gardeners Assoc. of Passaic Co. Training Course, Wayne, NJ	Ticks and Lyme Disease	3 hr	Master Gardener Trainees	Lecture	17			
6/14/04	Rotary Club of Pompton Lakes, NJ	Ticks and Lyme Disease	1.5 hr.	General Public	Lecture	35			
2/26/04	Master Gardeners Assoc. of Passaic Co. Training Course, Wayne, NJ	Basic Botany	2.5 hr.	Master Gardener Trainees	Lecture	18			
2/14/04	Master Gardeners Assoc of Essex Co. Advanced Training, Roseland, NJ	Biotech 2	1.5 hr.	Master Gardeners	Lecture	35			
11/25/03	Master Gardeners Assoc. of Passaic Co. Advanced Training, Wayne, NJ	Central Asian Vegetables	1.5 hr.	Master Gardeners	Lecture	32			
11/8/03	Master Gardeners Assoc. of Essex Co. Advanced Training, Roseland, NJ	Biotech 1	1.5 hr.	Master Gardeners	Lecture	35			
9/24/03	Master Gardeners Assoc. of Essex Co. Training Course, Roseland, NJ	Botany and Horticulture 2	2.5 hr.	Master Gardener Trainees	Lecture	28			
9/17/03	Master Gardeners Assoc. of Essex Co. Training Course, Roseland, NJ	Botany and Horticulture 1	2.5 hr.	Master Gardener Trainees	Lecture	28			
9/13/03	Master Gardeners Assoc. of Essex Co. Advanced Training, Roseland, NJ	Native vegetation of Essex County	1.5 hr.	Master Gardeners	Lecture	35			
5/9/03	Essex County 4-H Fair, West Orange, NJ	Production and Marketing of Central Asian Vegetables	Poster	General Public	Production				
4/26/03	Cook/NJAES Ag Field Day	Production and Marketing of Central Asian Vegetables	Poster	General Public	Production				
4/18/03	Glen Rock, NJ Garden Club	Vegetable Gardening – Commercial to Consumer	1.0 hr.	General Public	Lecture	38			
1/30/03	Master Gardeners Assoc. of Passaic Co. Training Course, Wayne, NJ	Propagating plants from seeds	2.5 hr.	Master Gardener Trainees	Lecture	24			
1/17/03	Vegetable Growers Association of New Jersey Educational Program	Transition to New Technologies	3 hrs.	Commercial Growers, Extension professionals, Government	Co-Organizer	45			

1/16/03	Vegetable Growers Association of New Jersey Educational Program	Field Performance of Central Asian Vegetables in New Jersey	45 min	Commercial Growers, Extension Professional s, Government	Lecture	50			
1/16/03	Vegetable Growers Association of New Jersey Educational Program	Ethnic Vegetables	3 hrs	Commercial Growers, Extension professional s, Government	Co-Organizer	50			
1/8/03	Master Gardeners Assoc. of Essex Co. Training Course, Roseland, NJ	Vegetable production	2.5 hr. lec.	Master Gardener Trainees	Lecture	26			
10/9/02	Master Gardeners Assoc. of Essex Co. Training Course, Roseland, NJ	Basic Botany	2.5 hr. lec.	Master Gardener Trainees	Lecture	26			
9/21/02	Special Event on Heirloom Horticulture, New York Botanical Garden	Heirloom vegetables	3.0 hr. lec. + demonstration	General Public	Total	125			
8/28/02	Special Event on Heirloom Horticulture, New York Botanical Garden	Heirloom tomatoes	3.0 hr. lec. + demonstration	General Public	Total	90			
5/17/02	Special Event on Heirloom Horticulture, New York Botanical Garden	Heirloom garlic and peaches	2.0 hr. lec. + demonstration	General Public	Total	115			
1/18/02	Vegetable Growers Association of New Jersey Educational Program	Potential for Marketing Central Asian Vegetables in the Northeastern U.S.	45 min	Commercial growers, Extension professional s, Government	Lecture	45			
1/18/02	Vegetable Growers Association of New Jersey Educational Program	New Technology	3 hr	Commercial Growers, Extension Professional s, Government	Organizer	40			
8/19/01	RCE, Southern NJ Vegetable Twilight Meeting, RAREC	Central Asian vegetable trial plot results	20 min. demonstration	Growers, Industry reps, Extension	Lecture + demonstration	55			
1/15/01	Vegetable Growers Association of New Jersey Educational Program	Breeding Central Asian Melons for Disease Resistance	30 min	Commercial Growers, Extension Professional s, Government	Lecture	35			
8/16/00	Southern NJ Field Meeting, NJ Farm Bureau, RAREC	Central Asian vegetable trial plot results	20 min. demonstration	Growers, Industry reps, Extension	Lecture + demonstration	28			
5/7/00	Lou Vasvary Memorial In-Service Training, New Brunswick, NJ	IPM and Rational Pest Management	3 hrs. moderator	Growers, Industry reps, Extension	Total; Organizer	32			
2/9/00	Central NJ Vegetable Growers Meeting,	Germplasm resources in the Republic of Uzbekistan	1.0 hr. featured luncheon, presentati	Growers, Industry reps, Extension	Lecture	130			

	Freehold, NJ		on						
1/17/00	Vegetable Growers Association of New Jersey Educational Program	Potential of Central Asian Melons in New Jersey	30 min	Commercial Growers, Extension Professionals, Government	Lecture	35			
1/12/00	Nutraceuticals Workshop, Cumberland Co. Comm. Coll.	Biotech and nutraceuticals	Panel presentation	Growers, Industry reps, Extension	Panel	70			
11/12/97	Agricultural Biotech Center Retreat, North Brunswick, NJ	Rutgers Cooperative Extension	1.0 hr. lec.	Scientists	Lecture	55			
9/25/97	Cook/NJAES VIP Tour	New Jersey Vegetable Production	20 min. lec.	Political leaders, Admin.	Lecture	20			
12/9/95	"New Horizons in Education", Corell Inst., Burlington Co. Comm. Coll., Pemberton, NJ	Teaching biotech to primary and secondary students	1.5 hr. lec.	Teachers	Lecture	125			

- **On-Line Course Development – Rutgers University**

INSTRUCTOR – Developed an on-line course entitled “Food Safety Strategies For Enhanced Competitive Position in Asparagus”, Camptasia-driven slide show with voice-over and dubbing accompaniment scripted by TJO, for USDA/TAA, February 2011.

- **Extension Teaching – University of California, Davis**

INSTRUCTOR - Developed and taught a short course on plant breeding and horticulture to inmates at the California Correctional Institute at Vacaville, 1981.

Delivered 15 talks to celery growers in extension meetings in Monterey, Santa Barbara, and Ventura Counties, and at the LAX Airport 1978 – 1982

SCHOLARSHIP

Note: * denotes graduate student, technician, or postgraduate scientist under the direct supervision of T. J. Orton

- **Dissertations**

Orton, T. J. 1979. A Study of Regeneration and Karyotypic Variability in Tissue Cultures of *Hordeum vulgare*, *H. jubatum*, and Their Interspecific Hybrid, Ph.D., Michigan State University, Co-Advisors P.S. Carlson, J.E. Grafius, and W. Tai, 186 pp.

- **Published Books – Authored**

Orton, T. J. 2018. Horticultural Plant Breeding, accepted for publication by Academic Press/Elsevier, London/Amsterdam, 320 pp (95% written).

- **Published Books – Edited**

Tanksley, S. D. and Orton, T. J. 1983. Isozymes in Plant Genetics and Breeding, Part A, Elsevier, Amsterdam, 516 pp. (50% Idea; 50% Editing)

Tanksley, S. D. and Orton, T. J. 1983. Isozymes in Plant Genetics and Breeding, Part B. Elsevier, Amsterdam, 422 pp. (50% Idea; 50% Editing)

- **Published Books – Chapters**

Orton, T. J. 2016. Overcoming perceived barriers to networking: Collaborations with your inner self. In: Pathways to Collaboration, ed. By Fowler, J., Holowinsky, R., Channell, A., Crocomo, O., Kreier, J., and Sharp, W., Ohio State Univ. Press. (in preparation (100% idea; 100% writing)

Orton, T. J. and Romig, W. R. 1991. Marketing novel horticultural commodities. In: A. B. Bennett and S. D. O'Neill, eds., Horticultural Biotechnology, Wiley-Liss, New York, pp 357-371. (75% Idea; 75% Writing)

Romig, W. R. and Orton, T. J. 1990. Biotechnology applications to the improvement of quality of fruits and vegetables. In: J. Jen, ed., Chemistry and Technology in Quality Improvement of Fruits and Vegetables, American Chemical Society, Washington, D. C., pp 381 - 393. (25% Idea; 50% Writing)

Orton, T. J. 1988. Biotechnology and the plant sciences. In: L. Busch and W. Lacy., eds., Biotechnology and the Agricultural Cooperatives, Univ. of Kentucky Press, Lexington, KY, pp 11 - 23.

Orton, T. J. and *Reilley, A. A. 1988. Biotechnology for the differentiation of food properties. In: M. Phillips, S. P. Shoemaker, R. D. Middlekauff., and R. M. Ottenbrite, eds., Impact of Chemistry on Biotechnology, American Chemical Society, Washington, D. C., pp 296 - 306. (75% Idea; 50% Writing)

Orton, T. J. 1988. New technologies and the enhancement of plant germplasm diversity. In: J. Kloppenburg Jr., ed., Seeds and Sovereignty: Debate Over the Use and Control of Plant Genetic Resources, Plenum, New York, pp 145 - 170.

Orton, T. J. 1986. Case histories of genetic variability in vitro: Celery. In: I. K. Vasil, ed., Cell Culture and Somatic Cell Genetics of Plants, Vol. 3, Academic Press, New York, pp 345 - 366.

*Browsers, M. A. and Orton, T. J. 1986. Cell and tissue culture of celery (*Apium graveolens* L.) and potential applications. In: Y. P. S. Bajaj, ed., Biotechnology in Agriculture and Forestry Vol I: Crops I, Springer-Verlag, Berlin-Heidelberg, New York, pp 405 - 420. (75% Idea; 50% Writing)

Orton, T. J. 1984. Genetic variation in somatic tissues: Method or madness? In: D. H. S. Ingram, ed., Advances in Plant Pathology, Vol. 2., Academic Press, London, pp 153-189.

Orton, T. J. 1984. Somaclonal variation: Theoretical and practical considerations. In: J. P. Gustafson., ed., Gene Manipulation in Plant Improvement, Plenum, New York, pp 427-468.

Orton, T. J. 1984. Celery and celeriac (*Apium graveolens*). In: W. R. Sharp, D. A. Evans, P. V. Ammirato, and Y. Yamada, eds., Handbook of Plant Cell Culture, Vol. 2., MacMillin, New York, pp 243-267.

Orton, T. J. 1983. Celery and celeriac (*Apium graveolens* L.). In: S. D. Tanksley and T. J. Orton, eds., Isozymes in Plant Genetics and Breeding, Part B. Elsevier, Amsterdam, pp 351-368.

*Shields, C. R., Orton, T. J., and Stuber, C. W. 1983. An outline of general resource needs and procedures for the electrophoretic separation of active enzymes from plant tissues. In: S. D. Tanksley and T. J. Orton, eds., Isozymes in Plant Genetics and Breeding, Part A. Elsevier, Amsterdam, p 443-468. (50% Idea; 50% Writing)

*Lassner, M. W. and Orton, T. J. 1983. Detection of somatic variation. In: S. D. Tanksley, and T. J. Orton, eds., Isozymes in Plant Genetics and Breeding, Part A. Elsevier, Amsterdam, pp 209-218.

Orton, T. J. 1983. Applications of isozyme technology in breeding cross-pollinated crops. In: S. D. Tanksley and T. J. Orton, eds., Isozymes in Plant Genetics and Breeding, Part A. Elsevier, Amsterdam, pp 363-376.

- **Journal Articles – Refereed**

Orton, T. J., Garrison, S. A. and Ward, D. 2018. Yield dynamics and resource inputs for the mother stalk asparagus production system in the U.S. J. Amer. Soc. Hort Sci. (In preparation: Data set 95% complete).

Donderalp, V. and Orton, T. J. 2018. Inheritance of style length and linkage relationships in tomato (*Solanum lycopersicum* L.). Theoretical and Applied Genetics (In preparation: Data set 75% complete).

Paul, J., and Orton, T. J. 2018. Inheritance of fruit titratable acidity among parents and segregating populations of the tomato cv 'Ramapo'. Hort. Sci. (In preparation: Data set 90% complete).

Ibragimov, P. S., Avtonomov, V. A., Amanturdiyev, A. B., Namazov, S. E., Zaurov, D. E., Molnar, T. J., Eisenman, S. W., Orton, T. J., Percival, A. E., and Funk, C. R. 2008. Uzbek Scientific Research Institute of Cotton Breeding and Seed Production. J. Cotton Sci. 12:62-72.

Mavlyanova, R. F., Abdullaev, F. H., Khodijiev, P., Zaurov, D. E., Molnar, T. J., Goffreda, J. C., Orton, T. J., and Funk, C. R. 2005. Plant genetic resources and scientific activities of the Uzbek Scientific Institute of Plant Industry. HortSci. 40(1):10-14.

Mirzaev, M. M., Djavacynce U. M., *Zaurov, D. E., Goffreda, J. C., Orton, T. J., *Remmers, E. G., and Funk, C. R. 2003. The Schroeder Institute in Uzbekistan: Breeding and germplasm collections. HortSci. 39(7):1-5; *featured journal cover article*.

*Wright, J., *Reilley, A., Labriola, J., Kut, S., and Orton, T. 1996. Petaloid cytoplasmic male sterile plants from carrot cell cultures. HortSci. 31(3):421-425.

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*Murata, M. and Orton, T. J. 1987. Callus initiation and regeneration capacities in *Brassica* species. Plant Cell, Tissue, and Organ Culture 11:111-123.

Quiros, C. F., Rugama, A., Dong, Y. Y., and Orton, T. J. 1986. Cytological and genetic studies of male sterility in celery. Euphytica 35:867-876.

*Arus, P., *Shields, C. R., and Orton, T. J. 1986. Application of isozyme electrophoresis for purity testing and cultivar identification of F1 hybrids of *Brassica oleracea*. Euphytica 34:651-657.

*Singh, H., *Morss, S., and Orton, T. J. 1985. Effects of osmotic pretreatment and storage on germination of celery seed. Seed Sci. Technol. 13:551-558.

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Orton, T. J. 1985. Genetic instability during embryogenic cloning of celery. Plant Cell, Tissue, and Organ Cult. 4:159-169.

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*Hulbert, S. D. and Orton, T. J. 1984. Genetic and environmental effects on mean maturity date and uniformity in broccoli. *J. Amer. Soc. Hort. Sci.* 109:487-490.

*Singh, H., Orton, T. J., and *Hedridge-Esh, K. 1984. Osmoconditioning of okra and Capsicum sp. seeds for improving germination at low temperatures. In: R. N. Gohil, ed., *Recent Trends in Botanical Research*, Scientific Publishers, Jodhpur, India, pp 129-133.

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- *Singh, H., Orton, T. J., and *Hedridge-Esh, K. 1983. Standardization of osmoconditioning of okra seeds. *Indian J. Agric. Sci.* 53:24-26.
- *Murata, M. and Orton, T. J. 1983. Chromosome structural changes in cultured celery cells. *In Vitro* 19:83-89.
- *Arus, P., Tanksley, S. D., Orton, T. J., and Jones, R. A. 1982. Electrophoretic variation as a tool for determining seed purity and for breeding hybrid varieties of *Brassica oleracea*. *Euphytica* 31:417-428.
- *Murata, M. and Orton, T. J. 1982. Analysis of karyotypic changes in suspension cultures of celery. In: A. Fujiwara, ed., *Proceedings of the Fifth International Congress on Plant Cell and Tissue Culture*, Japanese Association of Plant Tissue Culture, Tokyo, pp 435-436.
- *Browsers, M. A. and Orton, T. J. 1982. Transmission of gross chromosomal variability from suspension cultures into regenerated plants of celery. *J. Hered.* 73:159-162.
- *Browsers, M. A. and Orton, T. J. 1982. A factorial study of chromosomal variability in tissue cultures of celery (*Apium graveolens* L.). *Plant Sci. L.* 26:65-73.
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- Orton, T. J. 1980. Haploid barley regenerated from callus cultures of *Hordeum vulgare* x *H. jubatum*. *J. Hered.* 71:280-282.

Orton, T. J. and Steidl, R. P. 1980. Cytogenetic analysis of plants regenerated from colchicine-treated callus cultures of an interspecific *Hordeum* hybrid. Theoret. Appl. Genet. 57:89-95.

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Orton, T. J. and Tai, W. 1977. Chromosome elimination in a complex hybrid of the genus *Hordeum*. Can. J. Bot. 55:3023-3033.

- **Journal Articles – Not Refereed**

Cooperhouse, H. L. and Orton, T. J. 2008. Hurdle technologies from field to fork. Food Safety, August/September 2008:46-55.

Orton, T. J. and Cooperhouse, H. L. 2005. Raw materials: A fundamental determinant of product quality and business success. Fresh Cut 13(4):42-43.

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Orton, T. J. 1982. New concepts in whole-plant genetics. Calif. Agric. 36:22-23.

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Orton, T. J. 1981. Rescuing plant germplasm, the ultimate raw material for crop improvement. Amer. Veg. Grower 29:61-62.

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Orton, T. J. and Puhalla, J. E. 1980. Researchers take aim on Fusarium in celery. Western Grower and Shipper 51:22-28.

- **Published Conference Proceedings**

Ayeni, A., Simon, J. and Orton, T. 2015. Exotic pepper variety development and fruit quality characterization. In: M. L. Casella and W. L. Kline, eds., Proceedings of the 60th Annual Meeting of the New Jersey Vegetable Growers Association, pp ____ - ____.

Nitzsche, P. J. and Orton, T. J. 2013. Grape tomato variety evaluations. In: M. L. Casella and W. L. Kline, eds., Proceedings of the 58th Annual Meeting of the New Jersey Vegetable Growers Association, pp ____ - ____.

Ayeni, A. and Orton, T. J. 2013. Exotic pepper project at Rutgers Agricultural Research and Extension Center, Bridgeton, NJ. In: M. L. Casella and W. L. Kline, eds., Proceedings of the 58th Annual Meeting of the New Jersey Vegetable Growers Association, pp ____ - ____.

Orton, T. J. 2010. Tomato Breeding for Pest Resistance and Better Profits. In: M. L. Casella and W. L. Kline, eds., Proceedings of the 55th Annual Meeting of the New Jersey Vegetable Growers Association, pp 106-108.

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Orton, T. J. 2010. Tomato Breeding for Pest Resistance and Better Profits. In: M. L. Casella and W. L. Kline, eds., Proceedings of the 55th Annual Meeting of the New Jersey Vegetable Growers Association, pp 106-108.

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Abstracts and Posters

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Giurleo, D., Gustafson, K., Chaudry, J., Singh, J., Thomas Villani, T., Ayeni, A., Orton, T., Dager, E., Pyne, R., Park, C., Wu, Q., and Simon, J. 2012. Chemical diversity of capsinoids and polyphenols in *Capsicum spp.* ACS Abstracts (??).

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Koelliker, Y., Tepper, B., Orton, T., Infante-Casella, M., Kline, W., Nitzsche, P., Rabin, J., and Summers, D. 2009. Consumer acceptance of fresh market tomatoes – are grape and cherry tomatoes preferred? *IFT Annual Meeting Proceedings* 8(29):2-3.

Orton, T. and Romig, W. 2008. Headspace gas composition following variable storage of asparagus spears and pre-cut vegetables in sealed microperforated film package designs. *HortSci* 43(3):596.

Orton, T. and Ward, D. 2008. Titratable acidity and pH of expressed juice from fruit of the hybrid tomato variety ‘Ramapo’ and constituent inbred parents. *HortSci*. 43(3):595.

Orton, T. J., Garrison, S. A., and Garrison, S. G. 2008. Evaluation of the mother stalk method of asparagus culture in New Jersey. *HortSci*. 43(3):595.

Ayeni, A.O., Majek, B.A. and Orton, T. J. 2000. Weed control technology transfer systems in Nigeria and the United States of America. Proc. 3rd International Weed Science Congress, Foz do Iguassu. p 233.

Orton, T. J. 1984. Chromosomal and Mendelian variability in cultures and regenerated plants. Proceedings of the 34th Annual Meeting of the Tissue Culture Association, p. 227.

Orton, T. J. 1984. Plants regenerated from cultured cells and their progenies: a nomenclatural dilemma, *Tissue Culture Association Newsletter* 26(4):4-5.

*Hedridge-Esh, K. and Orton, T. J. 1981. Effect of polyethylene glycol pretreatment of early growth and metabolism in onion (*Allium cepa* L.). *J. Amer. Soc. Hort. Sci.* 16(3):45.

Banks-Izen, M. S., Orton, T. J., and Rappaport, L. 1981. Fusarium-induced toxin production in celery and effects on celery cells in suspension culture. *J. Amer. Soc. Hort. Sci.* 16(3):93.

Orton, T. J. 1980. Progress at the crucifer working group. *UC Vegetable Crops Series* 208:66-67

Orton, T. J. and Nelson, J. L. 1979. Chromosomal variability in plants regenerated from callus cultures of an interspecific *Hordeum* hybrid. *Genetics* 91:91

- **Conference Presentations and Seminars**

“Genomics to detect and measure departures from autogamy in domesticated tomato”, presented at the 4th International Conference on Plant Genomics, Brisbane, Queensland, Australia, July 2016.

“Breeding Tomatoes for High Flavor”, a seminar presented to the Department of Plant Biology and Pathology, New Brunswick, NJ, December, 2013 (invited).

“Tomato Breeding”, a Research Forum entitled ‘Improving Fruit and Vegetable Raw Materials’ sponsored by Frito-Lay, Plano, TX, September, 2009 (invited).

“Development of a microwavable packaged asparagus product”, ‘Microwave Steam-Pack’ Annual Conference, Monroe, NJ, September, 2008 (invited).

“Headspace gas composition following variable storage of asparagus and pre-cut vegetables in sealed microperforated film package designs”, co-presented with W. Romig, NEASHS Annual Meeting, New Brunswick, NJ, January, 2008.

“Titratable acidity and pH of expressed juice from fruit of the hybrid tomato variety ‘Ramapo’ and constituent inbred parents”, co-presented with D. Ward, NEASHS Annual Meeting, New Brunswick, NJ, January, 2008.

“Evaluation of the mother stalk method of asparagus production in New Jersey”, co-presented with Stephen Garrison and Sara Garrison, NEASHS Annual Meeting, New Brunswick, NJ, January, 2008.

“Reciprocal Exchange and Testing of Vegetable Varieties in Uzbekistan and the U.S.A.”, International Workshop ‘Increasing Market-Oriented Vegetable Production in Central Asia and the Caucasus Through Collaborative Research and Development’, Tashkent, Uzbekistan, April, 2005 (invited; PowerPoint presentation authored by T. Orton, presented by Prof. V. Zuev, a collaborator).

“Virus Resistant Summer Squash Varieties”, Mid-Atlantic Fruit and Vegetable Growers Meeting, Hershey, PA, February, 2005 (invited).

“Performance of Central Asian Melons in New Jersey”, Mid-Atlantic Fruit and Vegetable Conference, Hershey, PA, January, 2002 (invited).

“Commercialization of biotechnology: Potential benefits and hazards”, Discovering Biotechnology Conference, sponsored by Johns Hopkins University, New Brunswick, NJ, October, 1999 (invited).

“New use agriculture and opportunities for North American growers”, Annual Meeting of the Controlled Environment Agriculture Society, New Brunswick, NJ, November, 1996 (invited).

“Molecular studies of petaloid cytoplasmic male sterility recovered from cell culture regenerants of carrot”, International Carrot Symposium, Bakersfield, CA, February, 1995 (invited).

"Prospects for biotechnology interaction between the U.S. and Mexico", Dupont Mexico Agricultural Division Annual Meeting, Cancun, Q.R., Mexico, May, 1992 (invited).

"Agricultural biotechnology in the United States", Mexican Society of Parasitology Annual Meeting, San Luis Potosi, S.L.P., Mexico, October, 1991 (invited).

“Somaclonal variation: Applications in developing nations”, USAID Conference on International Networking in Biotechnology, University of California, Davis, July, 1990. (invited).

PANEL PARTICIPANT - Symposium: ‘The History of Agriculture in the Salinas Valley’, Hartnell College, Salinas, CA, Sept. 1989 (invited).

"Marketing novel horticultural commodities", International Conference 'Horticultural Biotechnology', University of California, Davis, August, 1989 (invited).

"Biotechnology and the agricultural cooperatives", International Symposium “Agricultural Cooperatives”, University of Kentucky, Lexington, KY, April 1987 (invited).

"Applications of biotechnology in food processing", American Chemical Society Annual Meeting, Anaheim, CA, September, 1986 (invited).

"Outdoing evolution: Diversity in vitro", AAAS Annual Meeting, Philadelphia, PA, May 1986 (invited).

"The power of cell culture", International Symposium “The Science of Biotechnology: From Test Tube To Market”, University of California, Davis, May 1986 (invited).

"Factors affecting genetic instability in culture plant tissues", Seminar, College of Agriculture, Iowa State University, Ames, IA, February 1986 (invited).

"Genetic instability in cultured plant tissues", Seminar, Department of Molecular, Cellular, and Developmental Biology, University of Colorado, Boulder, CO, September 1985 (invited).

"Novel biotechnological inputs to *Brassica* breeding and genetics", Seminar, Plant Genetic Engineering Laboratory, New Mexico State University, Las Cruces, NM, September 1985 (invited).

"Walking turnips and talking tomatoes: The impact of new technologies on vegetable improvement", Denver Botanical Garden, Denver, CO, July 1985 (invited).

"Model systems for biotechnological applications in vegetable crop improvement", Symposium 'Biotechnology in Forest Science', Vancouver, BC, Canada, February 1985 (invited).

"Evidence for cellular selection during microspore culture in Brassica", INRA, Versailles, France, September, 1984.

"Molecular studies of genetic instability in vitro", International Conference "Plant Cell and Tissue Culture -Application to Crop Improvement", Olomouc, Czechoslovakia, September 1984 (Invited).

"Biotechnology cooperation among the private and public sectors in the United States", Centre d'Investigacio de Cabrils, Barcelona, Spain, September, 1984 (invited).

"Somaclonal variation and plant improvement", Stadler Genetics Symposium, Columbia, MO, March 1984 (invited).

"A longitudinal study of somaclonal variation", Gordon Conference on Plant Cell and Tissue Culture, Plymouth, NH, June 1983 (invited).

"Mendelian and chromosomal variability in cultured plant cells and regenerated plants", Tissue Culture Association Annual Meeting, Orlando, FL, June 1983 (invited).

"Cell culture technology and crop improvement", Seminar, Department of Agronomy and Range Science, University of California, Davis, May 1983 (invited).

"Genetic variation in somatic tissues", Seminar, Department of Botany and Plant Sciences, University of California, Riverside, April 1983 (invited).

"Genetic variation in regenerated plants", UCLA/ARCO Symposium on Plant Molecular Biology, Keystone, CO, April 1983 (invited).

"Molecular approaches to the phylogeny of *Brassica* species", Annual North American Crucifer Improvement Conference, Mesa, AZ, March 1983 (invited).

"Somaclonal Variation", Plant Molecular Biology Association Annual Meeting, Miami, FL January 1983 (invited).

"Genetics and breeding of Fusarium resistance in celery", National Celery Research Conference, Oxnard, CA, November 1982 (invited).

"Spontaneous genetic variability in cell and tissue cultures and regenerated plants", Seminar, Department of Horticulture, New Mexico State University, Las Cruces, NM, December 1981 (invited).

"Electrophoretic variability and plant breeding", Seminar, Department of Vegetable Crops, University of California, Davis, November 1981 (invited).

"Genetic stability and fidelity of phenotype reproduction", National Conference 'Advances in Methods of In Vitro Cloning for Large Scale Propagation of Plants', W. Alton Jones Cell Science Center, Lake Placid, NY, September 1981 (invited).

"De novo genetic variability in plant cell and tissue cultures", Annual Meetings of the AAAS, ASHS, and ASPP Pacific Divisions, Eugene, OR, June 1981 (invited).

"Chromosomal and isozymic variability in cultured plant cells", Gordon Conference on Plant Cell and Tissue Culture, Andover, NH, June 1981 (invited).

"Transmission of spontaneous in vitro genetic variability into regenerated plants", Seminar, Genetics Group, Michigan State University, East Lansing, MI, January 1981 (invited).

"Crucifer production in the People's Republic of China", Great Lakes Vegetable Grower's Annual Conference, Lansing, MI, January 1981 (invited)

"Plant parenthood: The process of plant improvement", Zoecon Corp., Palo Alto, CA, December 1980 (invited).

"In vitro and in vivo techniques of plant improvement in celery", Seminar, Department of Vegetable Crops, University of California, Davis, December, 1980 (invited).

"Vegetable production, breeding, and research in California", Shanghai Academy of Agricultural Sciences, Shanghai, People's Republic of China, August, 1980.

"Agricultural production methods in California", Sinkiang Academy of Agricultural Sciences, Urumchi, Sinkiang A.R., People's Republic of China, August, 1980.

"Agricultural biotechnology and research in the United States", Gansu Provincial Academy of Sciences, Lanchow, Gansu Province, People's Republic of China, July, 1980.

“Chromosomal variability in barley cell cultures”, Genetics Society of America and Canadian Society of Genetics Joint Annual Meeting, Edmonton, Alberta, Canada, July, 1979.

- **Germplasm Releases**

Orton, T. J. 2017. ‘RU07X08’, ‘RU12X13’, ‘RU14X15’, processing tomato F₁ hybrid varieties with high yield, internal color, and adaptation to Mid-Atlantic growing conditions. General public germplasm release.

Orton, T. J. and Nitzsche, P. J. 2016. ‘Rutgers 250’ and ‘Rutgers 250 Schermerhorn strain’ fresh market OP tomato varieties with high flavor, color, and yield. General public germplasm release.

Orton, T. J. 2013. ‘TPS3067’, ‘TPS3087’, ‘TPS3097’ processing tomato F₁ hybrid varieties with high yield, internal color, and adaptation to Mid-Atlantic growing conditions. General public germplasm release.

Orton, T. J. 2008. ‘TPS8033’, ‘TPS8043’, processing tomato OP varieties with excellent yield, internal color, and resistance to fruit rotting. General public germplasm release.

Orton, T. J. 1990. ‘DNAP 331’ celery population with increased processing yield. Internal release DNA Plant Technology Corp.

Orton, T. J. and Quiros, C. F. 1984. “UC-1” celery population with resistance to *Fusarium oxysporum* f. sp. *apii* Race 2. General public germplasm release.

- **Patents**

Orton, T. J. and Whitaker, R. J. 1992. Celery lines from cell cultures with increased stick yield. U.S. # 5124505.

- **Technical Reports and Fact Sheets**

Orton, T. J. and Garrison, S. A. 2017. Mother Stalk Asparagus Production System for Season Extension in New Jersey, RCE Fact Sheet in preparation, 5 ms pages.

Orton, T. J. and Garrison, S. A. 2017. White Asparagus Production and Marketing in New Jersey, RCE Fact Sheet in preparation, 5 ms pages.

Orton, T. J. and Garrison, S. A. 2017. Asparagus Season Extension Using The Mother Stalk Method, RCE Fact Sheet in preparation, 5 ms pages.

Orton, T. J., ed., 2015. Commercial Vegetable Production Recommendations, New Jersey Agricultural Experiment Station Bulletin E-001, 388 pp. and archived at www.njveg.rutgers.edu/html/bc-2production-guide/html (custom editions also distributed in VA, WV, MD, DE, and PA and excerpted verbatim in nationally distributed Gromark FS publication 2015 FS Crop Protection Handbook “Specialty Crops” Fruits and Vegetables Section).

Orton, T. J., ed., 2014. Commercial Vegetable Production Recommendations, New Jersey Agricultural Experiment Station Bulletin E-001, 366 pp. and archived at www.njveg.rutgers.edu/html/bc-2production-guide/html (custom editions also distributed in VA, WV, MD, DE, and PA and excerpted verbatim in nationally distributed Gromark FS publication 2014 FS Crop Protection Handbook “Specialty Crops” Fruits and Vegetables Section)

Orton, T. J., ed., 2013. Commercial Vegetable Production Recommendations, New Jersey Agricultural Experiment Station Bulletin E-001, 328 pp. and archived at www.njveg.rutgers.edu/html/bc-2production-guide/html (custom editions also distributed in VA, WV, MD, DE, and PA and excerpted verbatim in nationally distributed Gromark publication 2013 FS Crop Protection Handbook “Specialty Crops” Fruits and Vegetables Section)

Orton, T. J., ed., 2012. Commercial Vegetable Production Recommendations, New Jersey Agricultural Experiment Station Bulletin E-001, 306 pp. and archived at www.njveg.rutgers.edu/html/bc-2production-guide/html (custom editions also distributed in VA, WV, MD, DE, and PA and excerpted verbatim in nationally distributed Gromark publication 2012 FS Crop Protection Handbook “Specialty Crops” Fruits and Vegetables Section)

Orton, T. J., ed., 2011. Commercial Vegetable Production Recommendations, New Jersey Agricultural Experiment Station Bulletin E-001, 296 pp. and archived at www.njveg.rutgers.edu/html/bc-2production-guide/html (custom editions also distributed in VA, WV, MD, DE, and PA and excerpted verbatim in nationally distributed Gromark publication 2011 FS Crop Protection Handbook “Specialty Crops” Fruits and Vegetables Section)

Orton, T. J. and Garrison, S. A., eds., 2010. Commercial Vegetable Production Recommendations, New Jersey Agricultural Experiment Station Bulletin E-001, 281 pp. and archived at www.njveg.rutgers.edu/html/bc-2production-guide/html (custom editions also distributed in VA, WV, MD, DE, and PA and excerpted verbatim in nationally distributed Gromark publication 2010 FS Crop Protection Handbook “Specialty Crops” Fruits and Vegetables Section)

Orton, T. J. and Garrison, S. A., eds., 2009. Commercial Vegetable Production Recommendations, New Jersey Agricultural Experiment Station Bulletin E-001, 268 pp. (custom editions also distributed in VA, WV, MD, DE, and PA and excerpted verbatim in nationally distributed Gromark publication 2009 FS Crop Protection Handbook “Specialty Crops” Fruits and Vegetables Section)

Orton, T. J. and Garrison, S. A., eds., 2008. Commercial Vegetable Production Recommendations, New Jersey Agricultural Experiment Station Bulletin E-001, 252 pp. (custom editions also distributed in VA, WV, MD, DE, and PA)

Orton, T. J. and Garrison, S. A., eds., 2007. Commercial Vegetable Production Recommendations, New Jersey Agricultural Experiment Station Bulletin E-001, 241 pp. (custom editions also distributed in VA, MD, DE, and PA)

Orton, T. J. and Garrison, S. A., eds., 2006. Commercial Vegetable Production Recommendations, New Jersey Agricultural Experiment Station Bulletin E-001, 233 pp. (custom editions also distributed in VA, MD, DE, and PA)

Orton, T. J. 1991. Summary of 1990 experiments on the pithiness disorder in celery. DNA Plant Technology Corporation Technical Report. 166 pp.

*Wanless, M. L., and Orton, T. J. 1990. Production of Beit Alpha cucumbers in plastic houses. DNA Plant Technology Corporation Technical Report. (90% Idea; 25% Research; 50% Writing) 12 pp.

Orton, T. J. 1990. Pre-cut quality assurance experimental results. DNA Plant Technology Corporation Technical Report. 36 pp.

*Weinheimer, W. H., and Orton, T. J. 1990. Comprehensive vegetable variety trial data and analyses in North America and Europe. DNA Plant Technology Corporation Technical Report. (90% Idea; 10% Research; 20% Writing) 156 pp.

Orton, T. J., and Haga, J. 1990. Summary of 1989 experiments on the pithiness disorder in celery. DNA Plant Technology Corporation Technical Report. (70% Idea; 75% Research; 75% Writing) 38 pp.

Orton, T. J. 1989. Proposed geographical and temporal production plan. DNA Plant Technology Corporation Technical Report. 33 pp.

Orton, T. J. 1989. Vegetable raw material production strategic plan. DNA Plant Technology Corporation Technical Report. 88 pp.

Orton, T. J. 1988. New technologies for the development of potato-based food and industrial products. DNA Plant Technology Corporation Technical Report. 10 pp.

*Peterson, R., and Orton, T. J. 1988. Effect of soil hilling on green core in Nantes type carrots, part 2. DNA Plant Technology Corporation Technical Report. (90% Idea; 25% Research; 25% Writing) 12 pp.

Orton, T. J. 1988. Comprehensive analysis of vegetable production in Baja California, Mexico. DNA Plant Technology Corporation Technical Report. 48 pp.

Orton, T. J. 1988. Vegetable production in Mexico. DNA Plant Technology Corporation Technical Report. 27 pp.

Orton, T. J. 1988. Garlic breeding status and commercial potential. DNA Plant Technology Corporation Technical Report. 14 pp.

*Vestal, K. H., and Orton, T. J. 1987. Effect of soil hilling on green core in Nantes type carrots, part 1. DNA Plant Technology Corporation Technical Report. 12 pp. (90% Idea; 25% Research; 25% Writing)

Orton, T. J. 1982. Breeding celery for disease resistance and improved quality. In: T. Batkin, ed., California Celery Research Program; 1981-1982 Annual Report, California Celery Research Advisory Board, Dinuba, CA, pp 41-46.

Orton, T. J. 1982. Genetics and breeding of resistance to the Fusarium yellows pathogen of celery. In: T. Batkin, ed., California Celery Research Program; 1981-1982 Annual Report, California Celery Research Advisory Board, Dinuba, CA. pp 127-140.

Orton, T. J. 1982. Toward hybrid celery. In: T. Batkin, ed., California Celery Research Program; 1981-1982 Annual Report, California Celery Research Advisory Board, Dinuba, CA. pp 177-184.

Rappaport, L., Banks-Izen, M. S., Fujii, D. S., Orton, T. J., Stuart, D., Pullman, G., Matlin, S. A., and Thompson, R. H. 1982. Celery cell and tissue culture: Toward induced variation and selection for resistance to Fusarium oxysporum f. sp. apii. In: T. Batkin, ed., California Celery Research Program; 1981-1982 Annual Report, California Celery Research Advisory Board, Dinuba, CA. pp 117-125. (10% Contribution)

Dewey, D. R., Sunderman, D. W., Thompson, R. K., and Orton, T. J. 1981. Plant Germplasm Resources in the People's Republic of China, USDA-OICD Official Publication, Washington, D.C. 145 pp. (25% Contribution)

Orton, T. J. 1981. Breeding celery for disease resistance and improved quality. In: F. Pusateri, ed., California Celery Research Program; 1980-1981 Annual Report, California Celery Research Advisory Board, Bakersfield, CA, pp 41-63.

Orton, T. J. 1980. Breeding celery for disease resistance and improved quality. In: F. Pusateri, ed., California Celery Research Program; 1979-1980 Annual Report, California Celery Research Advisory Board, Bakersfield, CA, pp 39-55.

Orton, T. J. 1979. Breeding celery for disease resistance and improved quality. In: F. Pusateri, ed., California Celery Research Program; 1978-1979 Annual Report, California Celery Research Advisory Board, Bakersfield, CA, pp 46-56.

- **Newsletter Articles and Columns**

Orton, T. J. 2009. Some tomato varieties do taste better than others. Plant and Pest Advisory 8(29):2-3, Rutgers Cooperative Extension.

Orton, T. J. 2004. Management practices for turfgrasses in North Central New Jersey. Master Gardeners Association of Essex County Newsletter, January 2004 2 – 4.

Orton, T. J. 2003. Plans to control mosquitoes in Essex County. Master Gardeners Association of Essex County Newsletter, August 2003 1, 6.

Orton, T. J. 2003. Understanding mosquitoes: how to avoid being lunch. Master Gardeners Association of Essex County Newsletter, July 2003 5, 6.

Orton, T. J. 2003. Production of Central Asian vegetables in New Jersey and marketing in New York City. Master Gardeners Association of New Jersey Newsletter, June 2003.

Orton, T. J. 2003. Planting woody perennial ornamental plants. Master Gardeners Association of Essex County Newsletter, May 2003, 5, 6.

- **Grants and Contracts (PIs listed as authors)**

Orton, T. J. 2018 – 2019. “Breeding Seedless Table Grapes”, Four-Star Farms Contract, \$127,000.

Orton, T. J., 2017-2018. “Breeding Processing Tomatoes”, B&G Foods, Inc. Gift, \$11,000.

Orton, T. J. 2017-2018. “Effects of a Polymicrobial Suspension on Yield and Quality of Hydroponic Sweet Basil”, reNature, Inc. Gift, \$6,500.

- Orton, T., Ayeni, A., and Simon, J. 2017. "Exotic Pepper Variety Development Program", NJAES, \$42,000
- Orton, T. J., 2016-2017. "Breeding Processing Tomatoes", B&G Foods, Inc. Gift, \$6,000.
- Orton, T., Ayeni, A., and Simon, J. 2016. "Exotic Pepper Variety Development Program", NJAES, \$44,000
- Orton, T. J. 2016. "Low Input Eggplant Production", Comarco Foods, Inc. Gift, \$6,000.
- Orton, T. J., 2015-2016. "Breeding Processing Tomatoes", B&G Foods, Inc. Gift, \$11,000.
- Orton, T., Ayeni, A., and Simon, J. 2015. "Exotic Pepper Variety Development Program", NJAES, \$42,000
- Nitzsche, P., and Orton, T. 2015. "Rediscovering the Rutgers Tomato", NESARE Partnership Competitive Grant Program, \$14,500.
- Orton, T. J. 2014-2015. "Breeding Processing Tomatoes", B&G Foods, Inc. Gift, \$11,000.
- Orton, T. J. 2013-2014. "Breeding Processing Tomatoes", B&G Foods, Inc. Gift, \$10,000.
- Orton, T. J. 2013. "Humates and Poly-Microbials for Enhancement of Tomato and Pepper Performance", World Soil Solutions, Inc. Gift, \$8,000.
- Orton, T. J. 2012-2013. "Breeding Processing Tomatoes", B&G Foods, Inc. Gift, \$10,000.
- Orton, T. J. and J. Heckman. 2012 "Effects of Sea Water Solutes on Plant Performance", Sea-Agri Products Corp. Gift, \$3,500.
- Orton, T. J. 2012. "Humates and Poly-Microbials for Enhancement of Tomato and Pepper Performance", World Soil Solutions, Inc. Gift, \$7,500.
- Orton, T. J. 2011-2012. "Overwintering Onion Production in the Mid-Atlantic U.S. Region for Processing and Fresh Market", F&S Foods, Inc. Gift, \$9,450.
- Orton, T. J. 2010. "Development of an On-Line Course in Food Safety for Asparagus Growers and Processors, USDA/TAA contract, \$9,750.
- Orton, T. and Ayeni, A. 2010 "Validity of Pesticide Recommendations on Exotic Pepper Varieties", IR-4 Project Gift, \$14,000.

- Orton, T. J. and J. Heckman. 2010 – 2011 “Effects of Sea Water Solutes on Plant Performance”, Sea-Agri Products Corp. Gift, \$10,000.
- Orton, T. J. 2010. “Breeding Processing Tomatoes”, Violet Packing Gift, \$10,000.
- Orton, T. J. 2008 – 2010 “Production Systems for Processing Vegetables”, F&S Produce Gift, \$15,000.
- Orton, T. J. 2008 – 2009 “Breeding Processing Tomatoes”, Violet Packing Gift, \$2,500.
- Orton, T. J. 2007 – 2008 “Postharvest Quality of Pre-Cut Fruits and Vegetables”, USDA/ARS Multi-State Project S-294, PI, \$57,500.
- Orton, T. J. 2007 – 2008 “Breeding Processing Tomatoes”, Violet Packing Gift, \$2,500.
- Orton, T. J. 2006 – 2007 “White Paper on Value-Added Food Packaging”, Food Innovation Center USDA/AIC, \$7,500.
- Orton, T. J. 2002 - 2003 "Specialty and Heirloom Food Product Development To Enhance the Value of New Jersey Agriculture", USDA/NJDA Block Grant, PI, \$60,000.
- Orton, T. J. 2002 "Evaluation of Central Asian Vegetable Varieties in New Jersey Markets", New Jersey Farm Bureau, PI, \$26,000.
- Buriev, Kh. Ch. and Orton, T. J. 2001 - 2003 "Reciprocal Exchange and Evaluation of Vegetable Germplasm Resources Between the U.S. and the Republic of Uzbekistan", Uzbekistan-USDA Collaborative Exchange/Research Program in the Agricultural Sciences, USDA/FAS, Co-PI, \$335,000.
- Ballister-Howells, P. and Orton, T. J. 2001 "Evaluation of Central Asian Vegetable Varieties in New Jersey Markets", New Jersey Department of Agriculture "Jersey Fresh" Grant Program, Co-PI, \$6,500.
- Orton, T. J. and Buriev, Kh. Ch. 2001 "Reciprocal Exchange of Vegetable and Melon Germplasm Resources Between the U.S. and the Republic of Uzbekistan: Evaluation and Improvement of Vegetable and Melon Cultivars", USDA/FAS/ICD/RSED/SCRIP, Co-PI, \$5,000.
- Orton, T. J. and Mir, N. 2000 - 2001 "New Jersey Horticultural Crops: Added Value Through Novel Preservation Systems", NJAES/Research Equipment Grant Program, Co-PI, \$50,000.

Orton, T. J. 2000 "Evaluation and Breeding of Central Asian Crop Varieties as Value-Added Alternatives for New Jersey Agricultural Producers", New Jersey Farm Bureau, PI, \$10,000.

Orton, T. J. 1994 - 1996 "Interspecific Hybridization to Alter Flowering Time in Heather", Coastal Nursery, Inc., PI, \$14,000.

Orton, T. J. 1992 - 1994 "Biotechnology Approaches to Seedlessness", Caratan Food Corp., PI, \$240,000.

Orton, T. J. 1989 - 1991 "Genetic Fingerprinting in Celery", Dole Foods Corp., PI, \$145,000

Orton, T. J. 1988 - 1990 "Biotechnology and New Pepper Varieties for Dehydration", General Foods Corp., PI, \$230,000.

Orton, T. J., and Pressman, E. 1982 - 1985 "Genetic and Physiological Studies of Flowering Behavior in Celery", BARD, Co-PI, \$120,000.

Orton, T. J. 1978 - 1982 "Breeding Celery for Disease Resistance and Improved Quality", California Celery Research Advisory Board, PI, \$120,000.

Orton, T. J. 1980 - 1982 "Molecular Studies of Phylogenetic Relationships among *Brassica* Species", USDA/CRGO, PI, \$60,000.

- **Awards**

TEAM AWARD, Ethnic Vegetables Team, from the Northeast Land Grant College and University Association, September 2013 (one of 10 recipients).

TEAM AWARD, "Rediscovering the Jersey Tomato-Revitalizing a Signature Crop for New Jersey Agriculture", from Rutgers School of Environmental and Biological Sciences and the New Jersey Agricultural Experiment Station, April 2009 (one of 6 recipients).

INNOVATIVE PROGRAM AWARD, Rutgers Food Innovation Center, from USDA/CSREES, November 2007 (one of 8 recipients).

TEAM AWARD, "Vegetable Working Group", from Rutgers Cooperative Extension, December 2001 (1 of 28 recipients)

HONORARY PROFESSOR, Kyrgyz Academy of Agricultural Sciences, Republic of Kyrgyzstan, April 2001

SERVICE

- **Contributions to the Advancement of the Academic Profession**

Commercial Vegetable Production Recommendations; NJAES E-1:

COORDINATING EDITOR and HORTICULTURE DISCIPLINE EDITOR, a >325 page guide on vegetable cultural practices, varieties, pesticide safety, and weed, disease, and pest management used extensively by growers and agribusinesses in NJ, PA, DE, MD, WV, and VA; 2005-present (12 annual editions to date).

USDA/ARS: MEMBER Technical Committee Multistate Project S-294 “Postharvest Quality of Pre-Cut Fruits and Vegetables”, 2007 – present.

Natural Resources, Agriculture, and Engineering Service (NRAES): MEMBER Advisory Board, 1998 - 2003; Executive Committee, 2000 – 2003; CHAIR of Executive Committee, 2002 – 2003. NRAES was a national consortium of state extension organizations until its dissolution in 2012.

Northeast Agricultural Program Leaders Group, USDA/CSREES: MEMBER 1995 – 1998

National Association of Biotechnology Companies: MEMBER - Planning Committee 1996 Annual Meeting, 1995 - 1996

International Society of Horticultural Science: MEMBER - Program Committee, International 1992 Conference on In Vitro Culture and Horticultural Breeding, Baltimore, MD, 1990 - 1992

USDA/CSRS: MEMBER - Program Review Team, Department of Horticulture, Pennsylvania State University, November, 1989

Plant Cell, Tissue, and Organ Culture: MEMBER, EDITORIAL BOARD of an international peer-reviewed scholarly periodical, 1985 - 1992.

Office of Technology Assessment, U.S. Congress: MEMBER - Working Group on Biological Diversity in Plants, 1985 - 1986.

Plant Growth Regulator Society of America: CHAIR, Local Arrangements Committee - 1985 Annual Meeting of the Society (Boulder, CO).

USDA/ARS: MEMBER - National Crop Advisory Committee, Crucifer Crops, National Plant Germplasm System, 1984 - 1991.

USDA/CSRS: MEMBER - Program Review Team, Department of Horticulture and Landscape Architecture, University of Minnesota, January, 1984.

1983 Gordon Conference on Plant Cell and Tissue Culture: SESSION CHAIR - "Variation in cultured plant tissues", (Plymouth, NH).

USDA/ARS: MEMBER –Western Regional Project W-6 Technical Committee, "Germplasm Preservation", 1979 - 1982.

USDA/ARS: MEMBER –Western Regional Project W-127 Technical Committee, "Stand Establishment", 1980 - 1982.

USDA/OICD: MEMBER - Plant Germplasm Exchange Delegation to the People's Republic of China, July and August 1980. Provided 89 new accessions to the USDA Plant Germplasm Resources Laboratory. The Delegation visited scientific institutions in Beijing, Hohehot (Inner Mongolia), Lanchow (Gansu Province), Urumqui (Xinjiang Province), Shanghai, and Nanjing.

REVIEWER – Manuscripts for peer-reviewed journals (e.g. *Journal of the American Society of Horticultural Science*, *HortScience*, *Agronomy Journal*, *Plant Cell, Tissue, and Organ Culture*, *Journal of Heredity*, *Journal of Food Science*, and *Theoretical and Applied Genetics*) and Competitive Grant Proposals (USDA Grant Programs, BARD), 1980-present.

SOCIETY PARTICIPATION:

American Society for Horticultural Science (1980-present)
American Association for the Advancement of Science (1986-2000)
American Phytopathological Society (1986-1996)
American Society for Plant Physiology (1985-1994)
Genetics Society of America (1980-1994)

• **Contributions to Universities, Including Departments, Schools or Colleges**

MEMBER – Reading Committee for Dr. Stacy Bonos, candidate for promotion to Professor, 2016

MEMBER – Reading Committee for Dr. Thomas Molnar, candidate for promotion to Associate Professor, 2014

SCIENTIFIC ADVISORY BOARD MEMBER, and Southern NJ Liaison, Jersey Flora, Inc., NJAES, 2007 – 2011

FACULTY ASSOCIATE – Rutgers Food Innovation Center, NJAES, 2005 – 2011

MEMBER – Emma Lausten Symposium Planning Committee, NJAES, 2006 – 2008

MEMBER – Revenue Enhancement Task Force, Rutgers Cooperative Extension, 2007.

CO-CHAIR – International Programs Steering Committee, Cook/NJAES, 2000 – 2005

SECRETARY – Department of Extension Specialists, 2002 – 2004

CHAIR – Reading Committee for Dr. Joseph Heckman, candidate for promotion to Extension Specialist, 2002

MEMBER - Membership and Nominating Committee, Cook College, 2001 – 2003

MEMBER (ELECTED) - Search Committee, Executive Dean/Director, Cook/NJAES, 2000 – 2002

MEMBER - Search Committee, Chair of the Department of 4-H Youth Development, 1999 - 2001

REPRESENTATIVE of Cook/NJAES - 70th Anniversary Exercises, Tashkent State Agrarian University, Republic of Uzbekistan, May 2001

MEMBER - New Jersey Mosquito Control Commission, NJAES Representative of the Director, 1997 - 2002

REPRESENTATIVE OF NJAES DIRECTOR - NJ Department of Agriculture, Division of Plant Industry, Rutgers University NJAES, 1997 - 2002

MEMBER - Cook College New Use Chair Initiative Committee, 1996 – 1999

MEMBER – Kellogg Foundation Mid-Atlantic Consortium, Core Steering Committee, Rutgers Institutional Steering Committee, 1995 – 2002

CHAIR - Cook/NJAES Clientele Input Task Force, 1996 - 1999; efforts resulted in a process for the inclusion of clientele input for extension faculty that was adopted as a resolution by the NJAES Board of Managers in 1999

CO-CHAIR - Horticultural Center Initiative Committee, 1997 – 1999

MEMBER - NJAES Delegation to Shanghai, The People’s Republic of China, June - July, 1997

MEMBER - Committee on Varietal Releases, Cook College/NJAES, 1995 - 1997

MEMBER - Cook/NJAES Urban Environment Station Initiative, 1996 – 1997

REPRESENTATIVE of NJAES DIRECTOR: USDA/IR-4 Annual Meeting, Colorado Springs, CO, 1996

MEMBER - Cook/NJAES Plant Science External Cluster Review Committee, 1996

MEMBER - Search Committee, Director of the EcoPolicy Center, 1995

• **Contributions to Society at Large**

MEMBER - Essex County Open Space Trust Advisory Committee, 2003 - 2005

MEMBER - Hudson-Essex-Passaic Counties Soil Conservation District Advisory Board, 2002 - 2004

MEMBER - Passaic County Agricultural Development Board, 2002 - 2004

MEMBER - Essex County Board of Agriculture, 2002 - 2004

MEMBER - Passaic County Board of Agriculture, 2002 – 2004

JUDGE – Essex County 4-H Fair, May 2004

JUDGE – Passaic County 4-H Fair, July, 2002, 2003

MEMBER – Northern New Jersey Ornamental Horticulture Committee, 2003 – 2004

MEMBER – Transition Team, Joseph DiVincenzo, elected Essex County Executive, 2002

MEMBER – New Jersey Invasive Species Council, New Jersey Department of Agriculture, 2000 - 2003

PARTICIPANT - Career Day, Pajaro Valley School District, Watsonville, CA, Presentations on careers in biotechnology and agriculture, 1987, 1988, 1989, 1990.

JUDGE - California Annual Statewide 4-H Convention, Vegetable Competitions, Davis, CA, 1979 and 1980.

