

Yaffa L. Grossman

Beloit College
Biology Department
Beloit WI 53511

Phone: (608) 363-2219
Fax: (608) 363-2052
Email: grossman@beloit.edu

Professional Preparation

Amherst College	Mathematics	A.B. 1978
University of Massachusetts, Amherst	Botany	M.S. 1981
University of California, Davis	Botany	Ph.D. 1993

Appointments

1987 - 1989	Research Assistant, Public Affairs Office, Ecological Society of America
1993 - 1996	Post Graduate Researcher, Department of Pomology and Department of Land, Air and Water Resources, University of California, Davis
1996	Lecturer, Department of Agronomy and Range Science, University of California, Davis
1996 - 2002	Assistant Professor, Biology Department, Beloit College, Beloit WI
2002-Present	Associate Professor, Biology Department, Beloit College, Beloit WI
Oct. 2002	Visiting scientist, Department of Natural Resources and Environment, Victoria, Australia
Oct.-Dec. 2002	McMaster Fellow, CSIRO-Plant Industry, Darwin, Australia
2003-Present	Chair, Environmental Studies Program, Beloit College, Beloit WI
2007	Chair, Department of Biology

Publications (* = Peer-Reviewed Publication)

Grossman, Y.L. and C. Lacy. 1982. The Amherst Water Conservation Project: Final Report, Hitchcock Center for the Environment and the Town of Amherst. 149 pp.

Grossman, Y.L. 1989. Toward a science-based policy on the release of genetically engineered organisms. *Washington Watch, BioScience* 39:229.

*Tiedje, J.M., R.K. Colwell, Y.L. Grossman, R.E. Hodson, R.E. Lenski, R.N. Mack, and P.J. Regal. 1989. The planned introduction of genetically engineered organisms: ecological considerations and recommendations. *Ecology* 70:298-315.

*DeJong, T.M. and Y.L. Grossman. 1992. Modelling the seasonal carbon economy of deciduous tree crops. In Third International Symposium on computer modelling in fruit research and orchard management. Eds. J.G. Buwalda and T.A. Atkins. *Acta Horticulturae* 313:21-28.

Grossman, Y.L. 1992. Genetic engineering, science, and society. Book review, *BioScience* 42:458-459.

*DeJong, T.M. and Y.L. Grossman. 1994. A supply and demand approach to modeling annual reproductive and vegetative growth of deciduous fruit trees. *HortScience* 29(12):1435-1442.

*Grossman, Y.L. and T.M. DeJong. 1994. Carbohydrate requirements for dark respiration by peach vegetative organs. *Tree Physiology* 14:37-48.

*Grossman, Y.L. and T.M. DeJong. 1994. PEACH: A model of reproductive and vegetative growth in peach trees. *Tree Physiology* 14:329-345.

Grossman, Y.L., E.W. Sanderson, and S.L. Ustin. 1994. Relationships between leaf chemistry and reflectance for plant species from Jasper Ridge Biological Preserve, California. *Proceedings of the International Geoscience and Remote Sensing Symposium*. Pasadena, CA. August 1994.

- Grossman, Y.L., S.L. Ustin, E.W. Sanderson, S. Jacquemoud, G. Schmuck, and J. Verdebout. 1994. Examination of regression and correlation approaches for extraction of leaf biochemistry information from leaf reflectance data. IN Accelerated Canopy Chemistry Program Final Report to NASA-EOS-IWG. 19 October 1994.
- *DeJong, T.M. and Y.L. Grossman. 1995. Quantifying sink and source limitations on dry matter partitioning to fruit growth in peach trees. *Physiologia Plantarum* 95:437-443.
- *DeJong, T.M., Y.L. Grossman, S.F. Vosburg, and L.S. Pace. 1995. PEACH: A user friendly peach tree growth and yield simulation model for research and education. *Acta Horticulturae* 416:199-206.
- *Grossman, Y.L. and T.M. DeJong. 1995. Maximum fruit growth potential and seasonal patterns of resource dynamics during peach growth. *Annals of Botany* 75:553-560.
- *Grossman, Y.L. and T.M. DeJong. 1995. Maximum fruit growth potential following resource limitation during peach growth. *Annals of Botany* 75:561-567.
- *Grossman, Y.L. and T.M. DeJong. 1995. Maximum vegetative growth potential and seasonal patterns of resource dynamics during peach growth. *Annals of Botany* 76:473-482.
- *DeJong, T.M., W. Tsuji, J.F. Doyle, and Y.L. Grossman. 1996. Do high density systems really pay? - Evaluation of high density systems for cling peaches. *Acta Horticulturae* 451: 599-604.
- *Grossman, Y.L., R.B. Elkins, and T.M. DeJong. 1996. Summer pruning does not appear to increase Bartlett pear crop yield on reduced height trees in northern California. *Acta Horticulturae* 451:543-550.
- Grossman, Y.L., R.B. Elkins, and T.M. DeJong. 1996. Summer pruning does not appear to increase Bartlett Pear crop yield on reduced height trees. IN 1995 Report, Research Projects for California Bartlett Pears. January 1996.
- *Grossman, Y.L., S.L. Ustin, S. Jacquemoud, E.W. Sanderson, G. Schmuck, and J. Verdebout. 1996. Critique of stepwise multiple linear regression for the extraction of leaf biochemistry information from leaf reflectance data. *Remote Sensing of Environment* 56:182-193.
- Pace, L.S., T.M. DeJong, and Y.L. Grossman. 1996. Applicazione di un nuovo modello fenoclimatico per la valutazione dell'attivita' vegeto-produttiva del pesco. III Giornate Scientifiche Societa' Orticoltura Italiana, Erice, Italy.
- Esparza, G., T.M. DeJong and Y.L. Grossman. 1997. Modeling the vegetative and reproductive growth of almonds. Second International Symposium on Pistachios and Almonds, Davis, California. August 24-29, 1997.
- *Andris, H.L., C.H. Crisosto, Y.L. Grossman. 1998. The use of reflective mulches to improve the apple fruit red color. *Congress Proceedings of the American Society of Plasticulture*. [Republished in English and French with additional abstracts in Spanish and German in *Plasticulture* 116:33-42.]
- *Berman, M.E., A. Rosati., L. Pace, Y.L. Grossman, and T.M. DeJong. 1998. Using simulation modeling to estimate the relationship between date of fruit maturity and yield potential in peach. *Fruit Varieties Journal* 52:229-235.
- *Grossman, Y.L. and T.M. DeJong. 1998. Training and pruning system effects on potential vegetative growth, light interception and cropping efficiency in peach trees. *Journal of the American Society for Horticultural Science* 123(6):1058-1064.
- *DeJong, T.M., W. Tsuji, J.F. Doyle and Y.L. Grossman. 1999. Comparative economic efficiency of four peach production systems in California. *HortScience* 34(1):73-78.
- *Esparza, G., T.M. DeJong and Y.L. Grossman. 1999. Modifying PEACH to model the vegetative and reproductive growth of almonds. *Acta Horticulturae* 499:91-106.
- *Jacobsen, K.R., Y.L. Grossman, Y.-L., Hsieh, W.F. Lalor, R.E. Plant, and J.A. Jernstedt. 2001. Neps, seed-coat fragments, and non-seed impurities in processed cotton. *Journal of Cotton Science* 5:53-67.
- Grossman, Y.L., T.M. DeJong, and S.F. Vosburg. 2002. PEACH. First review folder. *BioQUEST Library* Volume VI:116-117.

- Pavel, E.W. F.M.G. Vanassche, and Y.L. Grossman. 2003. Optimization of irrigation management in mango trees by determination of water and carbon demands to improve water use efficiency and fruit quality. Final Report to the Water Research Commission, Pretoria, South Africa.
- Grossman, Y.L. 2004. Doing science in the liberal arts. IN Ninety percent study and ninety percent experience edited by T. McBride. Beloit College Press, Beloit, WI.
- *Grossman, Y.L., A. González, and E.W. Pavel. 2006. Modeling mango fruit and vegetative growth. Proceedings of the Seventh International Symposium on Computer Modelling in Fruit Research and Orchard Management. *Acta Horticulturae* 707:33-40.

External Grants Received

- McMaster Foundation, travel grant for six week research visit to CSIRO-Plant Industry, Darwin, Australia, 2002.
- Department of Natural Resources and Environment, Victoria, Australia, travel grant for two weeks, Victoria, Australia, 2002.
- UDSA National Research Initiative: Competition among Reproductive and Vegetative Organs in Woody Plants, Y.L. Grossman, P.I. \$85,160, 2002-2004.

Major Honors Received

- Rose-Hulman Award for Impact Assessment for the paper: Tiedje, J.M., R.K. Colwell, Y.L. Grossman, R.E. Hodson, R.E. Lenski, R.N. Mack, and P.J. Regal. 1989. The planned introduction of genetically engineered organisms: ecological considerations and recommendations. *Ecology* 70:298-315. Awarded by the International Association for Impact Assessment, 1991.
- Underkofler Award for Excellence in Undergraduate Teaching, awarded by Alliant Corporation, April 2005.

Courses taught at Beloit College

BIOL 121: Botany	BIOL 372: Ecology
BIOL 206: Environmental Biology	BIOL 382: Senior Seminar
BIOL 247: Biometrics	ENVS 250: Environment and Society
BIOL 351: Plant Ecophysiology	ENVS 380: Senior Colloquium in Environmental Studies
BIOL 357: Comparative Physiology	
BIOL 291: Conservation Biology	FS 100: Environmental Sustainability

Recent workshops and presentations

- Grossman, Y.L., P.E. Weihe, and R.G. Woodmansee. 2006. Global ecological education: An initiative. Workshop. Ecology in an Era of Globalization: Challenges and Opportunities for Environmental Scientists in the Americas, Ecological Society of America, Merida, Mexico, January 11, 2006.
- Grossman, Y.L. 2006. Putting it all together: Capstone experiences as the first step towards life after college. Capstone Experiences; Transitioning Students Beyond College. Pew Midstates Science and Mathematics Consortium, Chicago, March 3-5, 2006.
- Grossman, Y.L. 2006. Exploring a local ecosystem: Writing to learn about the environment. Poster. Ecological Society of America annual meeting, Memphis, TN, August 6-11, 2006.

Upcoming presentations:

- Grossman, Y.L. 2007. Integrating photosynthesis, respiration, and growth: A Microsoft Excel®-based simulation of Wisconsin Fast Plant growth. Invited presentation, BioQUEST Curriculum Consortium Symposium, Education Forum, Botanical Society of America annual meeting, Chicago, IL, July 7-11, 2007.
- Grossman, Y.L. 2007. Functional-structural modeling of plant growth. Invited participant, Workshop: Roots--Now in 3-D! 3-D Root Architecture Imaging and Its Use in Structural-Functional Models. American Society for Horticultural Science annual meeting, July 16-19, 2007.
- Nilon, C. H., M. Pavao-Zuckerman, Y.L. Grossman, B. Olsen, and N. McIntyre. 2007. Urban ecosystem education: Concepts and practices. Workshop. Ecological Society of America annual meeting, San Jose, CA, Aug. 5-10, 2007.

Recent Professional Service

- Journal reviewer for *Journal of the American Society for Horticultural Science*, *HortScience*, *Tree Physiology*, *BioScience*, *Transactions of the American Society of Agricultural Engineers*, *Plant Physiology and Biochemistry*, *American Journal of Botany*, *Global Change Biology*, *Journal of Biosciences* 1988-present.
- Member, *Tree Physiology* Editorial Review Board for 1995-present.
- Member, Editorial Board, Proceedings of the Sixth International Symposium on Computer Modeling in Fruit Research and Orchard Management, *Acta Horticulturae* 584, July 2002, and Proceedings of the Seventh International Symposium on Modeling in Fruit Research and Orchard Management, *Acta Horticulturae* 707, April 2006.
- Workshop presenter, workshops on inquiry-based teaching methods and tools, including field studies, microcosm ecosystems, and simulation modeling programs (1997-present). Presentations to undergraduate faculty, high school teachers, and state resource managers at the BioQUEST National Workshop, NSF Project Kaleidoscope, Girls and Women in Science Conference, Beloit College, Natural Resources and Environment, Victoria, Australia, and others conferences.
- Member, Advisory Committee for the Ecosystem Services Communication Project, Ecological Society of America and Union of Concerned Scientists, March 1999- 2002.
- Reviewer, National Science Foundation Graduate Research Fellowships, 2001-2006. Panel chair 2004, 2006.
- SENCER (Science Education for New Civic Engagements and Responsibilities) participant, 2003.

Memberships:

- American Institute of Biological Sciences
American Society for the Advancement of Science
Botanical Society of America
Ecological Society of America