



RICKY M. BATES

Department of Plant Science, Penn State University
 303 Tyson Building, University Park, PA
 Phone: (814) 863-2198, Fax: (814) 863-6139
 E-mail: rmb30@psu.edu

EDUCATION:

B.S. 1981 West Virginia University, Morgantown, WV, Agriculture
 M.S. 1986 West Virginia University, Morgantown, WV, Horticulture
 Ph.D. 1994 Virginia Tech, Blacksburg, VA, Horticulture

EXPERIENCE:

2012-present Professor of Horticulture, Dept. of Plant Science, Penn State University
 2006-2012 Associate Professor, Horticulture, Dept. of Plant Science, Penn State University
 2000-2006 Assistant Professor, Horticulture, Dept. of Horticulture, Penn State University
 1994-2000 Assistant Professor, Horticulture, Dept. of Plant Sciences, Montana State Univ.

PROFESSIONAL POSITION:

Teaching Profile:

I am responsible for teaching both Hort 137, Woody Ornamental Plants-Trees and Hort 138, Woody Ornamental Plants-Shrubs, each fall semester in support of the Landscape Contracting program. I also develop and teach internationally-focused horticulture courses. These courses have included ‘International Horticulture Trade: Follow the Fruit’, ‘Food Security Strategies for Smallholder Farmers in SE Asia’, and ‘Sustainable Urban Agriculture’.

Extension Profile:

The objective of my extension education program is to assist nursery and Christmas tree producers enhance their profitability and competitiveness. The goal of this program is for stakeholders to develop a better understanding of improved production systems, best management practices, and adapted landscape plant material. Another important focus of my extension education program is to assist clients in underdeveloped nations establish successful income-generating horticultural enterprises and sustainable food production systems. Since 2000, I have been active in developing relationships and partnerships with horticulture business professionals, university faculty, government representatives, farmers and aid workers in Thailand, Cambodia and Myanmar.

Research Profile:

My research responsibilities include the development of innovative approaches to plant production systems and development of plant varieties exhibiting improved pest resistance and adaptability. Specific goals include the evaluation of conifer species and development of selections exhibiting improved pest resistance and adaptability, and the improvement of Christmas tree management practices focusing on postharvest handling and disease control. A

secondary focus of my research is the modernization of extension and agricultural advisory systems and the improvement of formal education systems in developing countries, particularly Southeast Asia.

SELECTED REFEREED JOURNAL PUBLICATIONS:

Bicksler, A J, **R.M. Bates**, and R.R. Burnette. 2015. The Current and Future Roles of the Small Farm Resource Center in Horticulture Extension and Advisory Services: Lessons Learned from Seven Case Studies in SE Asia. *Acta Hort.* (in press)

Chien-Chih Chen, **R.M. Bates** and J Carlson. 2014. Effect of environmental and cultural conditions in medium pH and plant growth performance of Douglas-fir (*Pseudotsuga menziesii*) shoot culture. *F1000* <http://f1000research.com/articles/3-298/v1>

Bates, R.M., T. Gill, A. Bicksler, L. Meitzner Yoder, R. Burnette and V. Ricciardi. 2013. Designing Strategies and Systems to Identify, Preserve and Promote Underutilized Indigenous Crop Species. *Acta Hort.* 979:569-576.

Hoover, B.J. and **R.M. Bates**. 2013. Susceptibility of Fraser, Canaan, and Nordmann Fir to Root Rot Incited by *Phytophthora cactorum* and *Phytophthora drechsleri*. *HortTechnology* 23 (1):44-50.

Gill, T. B., **R.M. Bates**, A. Bicksler, R. Burnette, V. Ricciardi, and L. Yoder. 2013. Strengthening informal seed systems to enhance food security in Southeast Asia. *Journal of Agriculture, Food Systems, and Community Development*. <http://dx.doi.org/10.5304/jafscd.2013.033.005> .

Bates, R.M., Bicksler, A., R. Burnette, T. Gill, V. Ricciardi, and Y. Srigiofun. 2012. Methodologies for strengthening informal indigenous vegetable seed systems in northern Thailand and Cambodia. *Acta Hort.* 958:67-74.

Hoover, B.J., and **R.M. Bates**. 2012. Fungicide Efficacy in Prevention of Root Rot Incited by *Phytophthora cactorum* and *Phytophthora drechsleri* in Fraser Fir Seedlings. *HortTechnology* 22 (4):470-475.

SELECTED GRANTS:

<u>Title, Authors, Sponsor(s)</u>	<u>Duration</u>	<u>Amount</u>
Women in Agriculture Network (WAgN) Cambodia: Gender- and Ecologically-Sensitive Agriculture. Bates, R.M., L. Jensen, C. Sachs, J. Larsen, E. Rajotte, D. Behring, T. Gill and D. Ader.	10/1/15-9/30/19	\$1,100,000
Innovation for Agricultural Training and Education (Innovate). Gill, T., Bates, R.M. , E. Rajotte, M. Gilbert, M. Foster. U.S. Agency for International Development.	9/1/12-8/30/17	\$750,000
Development and use of genomic tools to improve firs	9/1/11-	\$1,300,000

for use as Christmas trees. Frampton, J, G. Chastagner, **R.M. Bates**, J. ODonnell, D. Neale, V. Lohr, and B. Cregg. USDA SCRI. 8/30/15

Alternative Approaches for Delivering Extension Services to Smallholder Farmers in Southeast Asia. 9/1/12- 6/30/13 \$51,000
Bates, R. M., A. Bicksler and R. Burnette. USAID/Univ. of Illinois-Modernizing Extension and Agricultural Advisory Services.

Strengthening Indigenous Informal Seed Systems in Southeast Asia. **Bates, R.M.**, T. Gill, A. Bicksler, R. Burnette, Y Sigriofun. USAID/UC Davis-Horticulture CRSP. 10/1/10- 9/30/11 \$61,724

INTERNATIONAL CONSULTING

Dr. Bates served as a short-term consultant on (5) USAID-sponsored Farmer-to-Farmer projects, administered by Winrock International and ACDI/VOCA.

Project: Vegetable Seed Production / Improving Market Linkages for Organic Produce

Location: Yangon, Myanmar

Duration: 25 January-20 February, 2015

Description: Dr. Bates Training program was developed to help stakeholders: 1) Improve knowledge on high quality vegetable seed production, handling, processing, and storage, 2) Increase production of local vegetable seed and local vegetables, and 3) Increase small- and medium-scale farmers' access to high quality local vegetable seed, and improve knowledge of how to produce these seeds and vegetables on their farms, and 4) Increase income of host members and other small and medium scale farmers, 5) Improve market linkages between members, growers and producers of organic products and consumers, 6) Improve small-scale farmers' marketing of organic products, 7) Increase small-scale famers' knowledge of market information and the environment, and 8) Increase organic small scale organic farmers' incomes through improved market opportunities.

Project: Evaluating Caucasus Sources of Nordmann Fir Seed

Location: Tbilisi, Republic of Georgia

Duration: 15 –27 September, 2008 & 10-18 August, 2015

Description: Dr. Bates received a grant from USAID to support the development of an *Abies* seed export business between Goni, Ltd., Tbilisi, Georgia and Reliable Source conifer nursery, Morgantown, WV. While in Georgia, Dr. Bates presented seminars on various conifer seed topics, evaluated Nordmann fir native stands, and consulted with Goni, Ltd. Directors and key personnel. Project impact was highlighted in the feature article: Bates, R.M. 2009. Volunteer Helps Grow Christmas Tree Industry. ACDI/VOCA Feature article:

<http://www.acdivoca.org/acdivoca/PortalHub.nsf/ID/GeorgiaFtFchristmastree>

Project: Feasibility Study: Malakhovo Nursery Expansion

Location: Tula, Russia

Duration: 24 April – 12 May, 2005

Description: Dr. Bates advised directors of Malakhovo Nursery Co. on a variety of topics related to modern nursery production and marketing techniques. Dr. Bates published the following refereed journal article detailing his international consultation activities: Bates, R.M. 2006. Jumpstart your international extension experience with Farmer-to-Farmer. Journal of Extension. <http://www.joe.org/joe/2006december/iw1.shtml>.

Project: Improving *Abies nordmanniana* Seed Processing Protocols

Location: Tbilisi, Republic of Georgia

Duration: 8 December – 21 December, 2002

Description: Dr. Bates advised directors of Nitralli, Ltd. on a variety of topics related to conifer seed production, marketing and the U.S. conifer industry.

Project: Zakharchenko Nursery Development

Location: Zaporizhie, Ukraine

Duration: 25 June – 8 July, 2000

Description: Dr. Bates advised directors of Zakharchenko Nursery Co. on a variety of topics related to modern nursery production and marketing techniques.

FULBRIGHT AWARD / SABBATICAL LEAVE

Dr. Bates received a Lecturing/Research Fulbright award to Thailand for the period October 1, 2011 through March 31, 2012 for his project *Expanding Economic Opportunities for Rural Poor Farmers*. He was hosted by the Department of Horticulture, Maejo University, Chiang Mai, Thailand. The project goal and objectives included the development of economic opportunities for rural Thai farmers by deepening market access and participation. Activities focused upon indigenous crop selection, value chain development and increased seed exchange through the characterization of informal seed systems operating in Northern Thailand hill tribe villages.

