

SUMMARY OF PROFESSIONAL ACCOMPLISHMENTS

Name: Neil Bell

Rank: Senior Instructor (non-tenure track)

Department: Horticulture

Location: Marion and Polk Counties

OSU Extension Service, 3180 Center St. NE #1361. Salem, OR 97301

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Date hired in present position: May 24, 2000

FTE: 1.0 Extension

- 5-1-00 to 11-1-00: 0.75 FTE
- 11-1-00 to 9-30-03: 1.0 FTE
- 10-1-03 to 6-30-2008: 0.75 FTE
- 7-1-2008 to 10-31-2009: 1.0 FTE
- 11-1-2009 to present: 0.75 FTE

A. EDUCATION AND EMPLOYMENT INFORMATION

Year	Degree/Specialty	Institution
1992	Master of Science Horticulture; Plant pathology (minor)	Oregon State University
1990	Bachelor of Science Horticulture; Postharvest physiology (minor)	Univ. of British Columbia, Vancouver, B.C., Canada

Position	Institution/Company	Dates
Senior Instructor	Oregon State University	July 2006-present
Instructor	Oregon State University	May, 2000 – June 2006
Research Assistant Ornamentals	NWREC, Oregon State Univ.	July, 1995 – May, 2000
Research Assistant Berry Crops	NWREC, Oregon State Univ.	Sept. 1992 – June, 1995
Graduate Research Assist.	Horticulture, Oregon State Univ.	Sept. 1990 – Sept., 1992
Research Assistant	British Columbia Strawberry Growers' Association	May, 1990 – Aug., 1990

B. TEACHING, ADVISING AND OTHER ASSIGNMENTS

1. Instructional Summary

i. Credit courses

Year	CRN/Topic	# Students	#credits	Eval'tn ^y
2014 Sp	Hort 349E/ <i>Diagnosing Plant Problems</i>	29	3	5.7
2014 Wi	Hort 405/ <i>Pesticide and Fertilizer Training</i>	14	3	(1 lecture)
2013 Sp	Hort 349E/ <i>Diagnosing Plant Problems</i>	25	3	5.8
2013	Hort 499/ <i>Building Sustainable landscapes</i>	9	1	(1 lecture)
2012 Sp	Hort 349E/ <i>Diagnosing Plant Problems</i>	18	3	5.9
2012 Su	Bot 553/ <i>Plant Disease Diagnosis</i>	8	3	(1 lecture)
2011 Wi	Hort 255E/ <i>Herbaceous Ornamental Plants</i>	15	3	4.5

^yRating system is on a 0-6 scale in which 6 is the highest rating.

ii. Non-credit courses and workshops

Master Gardener training:

I have delivered 271 courses for Master Gardeners since being hired in May, 2000 and 158 since my last promotion. Of these courses, 132 were delivered outside my area of responsibility (MA, PO^z). The following courses are 3-hour classes, pooled by topic and sorted by year.

Year(s)	Topic	# Participants	Location ^z	Eval'tn ^y
2014	<i>MG Orientation</i>	63	MA, PO	
	<i>Propagation (seed)</i>	47	MA	
	<i>Pruning ornamentals</i>	197	BL, PO, LA, MA TI, YA	
	<i>Resources for MG's</i>	63	MA, PO	
	<i>Problem Diagnosis</i>	109	UN, HR, MA, PO	
2013	<i>MG Orientation</i>	56	MA, PO	
	<i>Propagation (seed)</i>	45	MA	
	<i>Pruning ornamentals</i>	223	BL, PO, LI, LA HR, MA, TI, YA	
	<i>Resources for MG's</i>	56	MA, PO	
	<i>Berries and grapes</i>	35	CL, BK	
	<i>Problem Diagnosis</i>	136	UN, BK, MA, PO MGmc	

2012	<i>MG Orientation</i>	65	MA, PO
	<i>Pesticide Safety</i>	30	PO
	<i>Propagation (seed)</i>	55	MA
	<i>Pruning ornamentals</i>	285	TI, LA, BL, PO MA, YA, DE
	<i>Resources for MG's</i>	65	MA, PO
	<i>Berries and grapes</i>	25	CL
	<i>Problem Diagnosis</i>	150	HR, BK, UN, PO MA, MGmc
	<i>Drought-resistant landscapes</i>	55	DO
2011	<i>MG Orientation</i>	47	MA, PO
	<i>Pesticide Safety</i>	20	PO
	<i>Propagation (seed)</i>	55	MA
	<i>Pruning ornamentals</i>	280	LA, MA, YA, BL TI, PO, LI, WA
	<i>Resources for MG's</i>	48	MA, PO
	<i>Berries and grapes</i>	40	UN, GR
	<i>Problem Diagnosis</i>	145	MA, PO, HR, BK MGmc
	<i>Drought-resistant landscapes</i>	45	DO
2010	<i>MG Orientation</i>	51	MA, PO
	<i>Pesticide Safety</i>	21	PO
	<i>Propagation (seed)</i>	55	MA
	<i>Pruning ornamentals</i>	205	LA, MA, YA BL, TI, PO
	<i>Resources for MG's</i>	53	MA, PO
	<i>Berries and grapes</i>	40	UN, GR, BK
	<i>Problem Diagnosis</i>	145	MA, PO, HR
2009	<i>MG Orientation</i>	67	MA, PO
	<i>Pesticide Safety</i>	80	MA, PO
	<i>Propagation (seed)</i>	96	MA, PO
	<i>Pruning ornamentals</i>	205	MA, PO, BL TI, LA, YA
	<i>Resources for MG's</i>	78	MA, PO
	<i>Problem Diagnosis</i>	145	MA, PO, HR
	<i>Drought-resistant landscapes</i>	45	DO
2008	<i>MG Orientation</i>	71	MA, PO
	<i>Pesticide Safety</i>	92	MA, PO
	<i>Propagation (seed)</i>	94	MA, PO
	<i>Pruning ornamentals</i>	296	MA, PO, BL TI, LA, LI, YA
	<i>Resources for MG's</i>	67	MA, PO

2008	<i>Problem Diagnosis</i>	186	MA, PO, HR, MGmc	
	<i>Berries and grapes</i>	35	UN, BK	
2007	<i>MG Orientation</i>	67	MA, PO	
	<i>Pesticide Safety</i>	135	MA, PO, JJ	
	<i>Propagation (seed)</i>	67	MA, PO	
	<i>Pruning ornamentals</i>	300	MA, PO, BL TI, LA, LI, YA	
	<i>Resources for MG's</i>	67	MA, PO	
	<i>Problem Diagnosis</i>	170	MA, PO, HR	
	<i>Mediterranean plants</i>	65	YA, DO	
	<i>Berries and grapes</i>	70	JJ	
<u>Prior to last promotion:</u>				
2006	<i>MG Orientation</i>	69	MA, PO	NA
	<i>Pesticide Safety</i>	87	MA, PO	3.7
	<i>Propagation (seed)</i>	57	MA	
	<i>Pruning ornamentals</i>	340	MA, PO, BL TI, LA, YA, MT NWREC	3.9
	<i>Resources for MG's</i>	86	MA, PO	3.6
	<i>Problem Diagnosis</i>	246	MA, PO, HR, MCmc	3.8
	<i>Mediterranean plants</i>	25	YA	NA
	<i>Berries and grapes</i>	28	WA	3.8
2005	<i>MG Orientation</i>	58	MA, PO	NA
	<i>Pesticide Safety</i>	84	MA, PO	3.9
	<i>Propagation (seed)</i>	57	MA	3.9
	<i>Pruning ornamentals</i>	244	MA, PO, BL TI, LA, YA NWREC	4.0
	<i>Resources for MG's</i>	66	MA, PO	4.0
	<i>Problem Diagnosis I @ II</i>	72	MA, PO	3.9
	<i>Mediterranean plants</i>	34	YA	NA
	<i>Berries and grapes</i>	26	BK	3.8
2004	<i>MG Orientation</i>	66	MA, PO	NA
	<i>Pruning ornamentals</i>	295	MA, PO, BL LA, YA, TI LI, NWREC	3.9
	<i>Botany basics</i>	53	MA	3.8
	<i>Annuals, perennials and shrubs</i>	35	YA	NA
	<i>Plant propagation (seed)</i>	106	MA, PO	4.0

2004	<i>Pesticide safety</i>	96	MA, PO	3.9
	<i>Resources for MG's</i>	50	MA	3.9
	<i>Problem diagnosis</i>	66	MA, PO	3.9
2003	<i>Botany basics</i>	50	MA	3.4
	<i>Pruning ornamentals</i>	340	CO, PO, LA BL, TI, MT, LI, MA, YA, NWREC	3.86
	<i>Annuals, perennials and shrubs</i>	110	MA, YA, PO	3.88
	<i>Pesticide Safety</i>	135	CC, MA, PO BK	3.78
	<i>Problem diagnosis/Resources</i>	100	MA, PO	3.75
	<i>Plant propagation (seed)</i>	95	MA, PO	NA
2002	<i>Botany basics</i>	37	PO	4.0
	<i>Berries and grapes</i>	63	BK, PO	3.4
	<i>Pesticide safety</i>	110	YA, PO, BL	3.8
	<i>Pruning ornamentals</i>	255	MA, TI, LI, LA, BL, YA, NWREC	NA
	<i>Plant propagation (seed)</i>	56	MA	NA
	<i>Annuals, perennials and shrubs</i>	29	YA	NA
	<i>New plants for your garden and how to propagate them</i>	90	MGmc	NA
	2001	<i>Berries and Grapes</i>	54	MA
<i>Pruning Ornamentals</i>		225	LI, BL, MA, TI, YA , NWREC	4.7
<i>Pesticide Safety</i>		24	PO	NA
<i>Annuals, perennials and shrubs</i>		85	MA, YA	4.5
<i>Botany Basics</i>		54	MA	NA
2000	<i>New plants for your garden and how to propagate them</i>	121	MGmc	NA
	<i>Pruning of trees and shrubs</i>	100	YA, TI, NWREC	4.8
1999	<i>Soil amendments</i>	24	NWREC	NA
1995-1996	<i>Berries and grapes</i>	85	BL, YA	4.5

^z MGmc=Master Gardener Mini-College; BK=Baker; BL=Benton/Linn; CL-Clatsop; CC=Coos/Curry; CO=Columbia; DE=Deschutes; DO=Douglas; GR=Grant; HR=Hood River; JJ=Jackson/Josephine; LA=Lane; LI=Lincoln; MA=Marion; MT=Metro; NWREC=North

Willamette Research and Extension Center; PACE-Professional And Continuing Education; PO=Polk; TI=Tillamook; UN=Union; WA=Wasco; YA=Yamhill; NA=Not available.

∧ Standard OSU evaluations used (1-5 with 5 highest, 1995-2001; 1-4 rating, 2003 to 2007), Evaluations for classes since last promotion in 2006 are in B.2.ii. Starting in 2009, rating is shown for CET form in response to "Quality of instruction in this educational event", rating scale is 1-6 with 6 highest.

Other oral presentations (to clientele other than Master Gardeners)

I have given 133 presentations to clientele since I was hired in May 2000 (not including Master Gardener classes which are listed in Section B.1.ii). Of these, 80 were since my last promotion. Of those, 64 were invited.

<u>Topic</u>	<u># presentations per year</u>	<u># Attendees</u>	<u># invited</u>	<u># outside region</u>
Resources/Problems	2/2010	263	2	2
	2/2009	115	2	2
	3/2008	180	2	2
Applied Research	1/2013	90	0	1
	1/2012	30	1	0
	1/2008	35	1	1
	2/2007	105	1	2
Low-input landscape	2/2013	37	2	0
	2/2012	95	2	2
	5/2011	50	1	1
	4/2010	208	3	3
	6/2009	235	6	6
	2/2008	25	1	0
Pruning ornamentals	3/2012	52	3	2
	1/2009	50	1	1
Plant culture	2/2014	75	2	2
	2/2007	135	2	2
New plants	1/2007	23	1	1
Specific plant genera	1/2014	18	1	0
	7/2011	60	0	1
	1/2010	28	1	0
	2/2009	25	2	2
	6/2008	167	6	2
	6/2007	265	6	4
	1/2014	12	1	0
Botanical Gardens	2/2012	45	2	0
	1/2011	40	1	0
	1/2013	12	1	1
Online classes	1/2012	40	1	1
	2/2014	60	2	2
Problem Diagnosis	2/2013	75	2	2

	3/2012	295	3	3
MG Program	1/2014	15	1	0
	1/2012	25	1	1

Prior to last promotion:

<u>Topic</u>	<u># presentations per year</u>	<u># Attendees</u>	<u># invited</u>	<u># outside region</u>
Resources/Problems	1/2005	220	1	1
Applied Research	3/2006	144	3	1
	1/2003	27	1	1
	3/2002	140	3	2
	2/2001	35	2	2
	3/2000	115	2	2
Low-input landscape	2/2005	230	2	2
	2/2004	52	2	1
	4/2003	154	4	2
	2/2002	50	2	0
	1/2001	15	1	0
Pruning ornamentals	3/2004	148	3	2
	1/2002	22	1	1
Plant culture	4/2003	315	4	3
	2/2001	125	2	1
	1/2000	20	0	1
New plants	2/2003	53	2	1
	5/2002	165	5	0
	5/2001	176	5	1
Specific plant genera	6/2006	202	4	1

(Prior to hire in present position):

28 presentations, 4 invited

Workshops (for Master Gardeners & the public):

I have organized or co-organized 30 individual workshops since being hired in May, 2000 and 4 since my last promotion in 2006.

Date	Topic	Instructor(s)	Site	Participants
2/2014	Pruning	Neil Bell	Polk County	15
5/2010	Spotted Wing Drosophila	Vaughan Walton	Polk County	26
4/2010	Spotted Wing Drosophila	Amy Dreves	Polk County	14

9/2007	Beneficial Insects	Carol Horning	Marion County	24
1/2007	Tree Fruit	Steve Renquist	Marion County	23
<u>Prior to last promotion:</u>				
6/2006	Pruning	Neil Bell Barb Fick	NWREC	27
2/2006	Pruning	Neil Bell Paul Ries	NWREC	24
2/2006	Tree Fruit	Steve Renquist	Marion County	19
6/2005	Pruning	Neil Bell Barb Fick	NWREC	25
2/2005	Pruning	Neil Bell Paul Ries Phil Edmunds	NWREC	25
9/2004	Propagation	Neil Bell Barb Fick Linda McMahan	NWREC	25
6/2004	Pruning	Neil Bell Barb Fick	NWREC	25
3/2004	Pruning berries	Bernadine Strik	Polk County	15
2/2004	Grape and berry Pruning	Bernadine Strik	Marion County	22
2/2004	Pruning	Neil Bell Paul Ries Phil Edmunds	NWREC	25
6/2003	Pruning	Neil Bell	NWREC	25
5/2003	Cover crops	John Luna	Marion County	16
2/2003	Pruning	Neil Bell Paul Ries Phil Edmunds	NWREC	25
2/2003	Grape and Berry pruning	Bernadine Strik	Marion County	46

12/2002	Tree Fruit Pruning	Jeff Olsen	Marion County	31
9/2002	Cover Crops for home gardens	John Luna	Marion County	18
8/2002	Spiders of the home and garden	Lynn Royce	Marion County	35
7/2002	Summer pruning of table grapes	Bernadine Strik	Marion County	12
3/2002	Alternatives for weed control	Dan McGrath	Marion County	40
2/2002	Control of rose diseases and pests	Jay Pscheidt	Marion County	46
1/2002	Grape and berry pruning	Bernadine Strik	Marion County	52
12/2001	Tree Fruit Pruning	Jeff Olsen	Marion County	39
11/2001	Fall Garden prep	Thirza Collins, Alison Henderson Linda McMahan, Barbara Fick Neil Bell		37
9/2001	Roots and Soil	Rita Hummel (WSU), John Luna		32
8/2001	OSU Clinic visit	Melodie Putnam, Richard Halse, Lynn Royce		14
6/2001	Beneficial Insects	John Parrott (MG), Amy Dreves Lynn Royce		71
4/2001	Agfest Seminars	Jay Pscheidt, Barbara Fick Mike Slater, Glenn Fisher, Lynn Royce		63
3/2001	Dividing Perennials and Pruning	Bobbie Shepherd (MG) Neil Bell		27
2/2001	Grape Pruning	Bernadine Strik		15

Workshop series for home gardeners/non-professional clientele

Fall Fling-a gardening festival (2003-2014). Together with the Polk County Master Gardeners, in 2003 we organized a 1-day series of seminars and workshops for the public held in September at Dallas High school. There were 4 seminars during the day as well as booths set up and staffed by area gardening and natural resource agencies. A lunch was organized and prepared by the Dallas High School catering class. The festival typically attracts 95 registrants who each paid \$5 for the day (not including lunch). The seminars were repeated in 2004-2013. Total attendance for the eleven years is 1375.

Credit and non-credit courses for professional clientele:

i. E-campus. Hort 349, *Diagnosing Plant Problems* (2012-14). I prepared a revised curriculum based on the one utilized for the 2010 class at CCC (see below) to be utilized for an online course through OSU E-campus offered originally in spring term 2012. I enlisted the support of Dr. Jay Pscheidt (Extension Plant Pathology Specialist) for a portion of the 11-week curriculum and as co-instructor. The class required development of 10 weeks of narrated lectures, of which I contributed 9 weeks, with 364 narrated slides. It also required development of weekly assignments, two midterms and one final exam and a student project idea. A total of 17 students completed the class. Class was subsequently offered in 2013 and 2014 with a total of 52 students completing the class. Evaluations from the class are summarized in section B.1.a.

ii. Professional and Continuing Education (PACE). *Plant Disease Certificate* (2013). Modified version of the E-campus Hort 349 curriculum. Lead instructor, co-taught in Fall term with Jay Pscheidt. 20 class members.

iii. Problem Diagnosis class at Chemeketa Community College (2010). I prepared a curriculum for, and delivered, a 2-credit, 3 day, 21-hour class on plant problem diagnosis in October, 2010. The class was offered to Horticulture students at CCC and elsewhere, Landscapers and Retail Garden Center employees, among others. A total of 17 students took the class this year. The class required development of 8 new Powerpoint modules with a total of 624 slides, as well as 4 exercises and a final exam.

Workshop series for professional clientele

Willamette Valley Green Industry Seminars (2003-2009). Together with Linda McMahan and Ann Marie VanderZanden from OSU, I organized a new seminar series for the green industry in the Willamette Valley. The seminars were jointly organized and sponsored by ourselves, the OR Department of Forestry, the Pacific Northwest ISA, the OR Landscape Contractors Association, the Oregon Association of Nurseries and the Oregon Garden. The seminars were held in the OAN room at the Oregon Garden on Tuesday afternoons in November and December 2003. The seminars were repeated in 2004-2009. Profits from the series were contributed to the endowed chair fund for the Master Gardener program.

iii. Curriculum Development:

Master Gardener curriculum:

I have developed 8 training modules since my last promotion. These are used by many other Extension faculty in their training programs throughout the state.

- i. Pruning ornamental shrubs, vines and conifers (Bell 2014). Revised Powerpoint pruning presentation with new images and animations. 205 slides. Revision from 2001-2013 versions.
- ii. Problem diagnosis (Bell 2014). Powerpoint module in two parts. The first part (289 slides) covers typical problems encountered in the Extension office, illustrated by photographs and resources used to solve problems. The second part (34 slides) is a series of problem worksheets distributed to class members that feature individual images of typical problems and basic information related to the problem. The class is divided into groups, and they use the resources discussed in the Resources module to solve the problem, after which each problem is discussed by the groups with the whole class. This approach ensures actual use of available resources to solve problems. Revision of module developed in 2003-13. Shared with OSU Extension faculty in Wasco County, Columbia County, Klamath County and Douglas County for Master Gardener training from 2009-2012.
- iii. Master Gardener orientation module (Bell 2013). The modules contain information on the training program and payback, required forms, MG projects in Marion and Polk counties as well as other MG activities such as chapter and board meetings. The modules consist of 69 and 47 slides for Marion and Polk counties, respectively. Originally developed in 2002; revised annually.
- iv. Low-input landscaping (Bell 2012). Revised module focusing on landscaping in western Oregon without the use of summer irrigation. 147 slides.
- v. Growing Mediterranean shrubs in the PNW (Bell 2009). Module is in two parts. Developed to explore water conservation concepts for gardeners and landscapers. First part (59 slides) covers climate, plant water use and soil preparation issues. Second part (56 slides) covers plants suitable for limited-water gardens. Used for training by Metro Regional Water Providers consortium (Portland, OR) in 2004. The module was originally prepared in 2003 and revised several times through 2009.
- vi. Online woody plant course (Bell 2008). For the online Master Gardener course I developed a new module on woody ornamental plant culture.
- vii. Resources for Master Gardeners (Bell 2007). Revised the Powerpoint module originally developed in 2003. Focuses on resources used by Master Gardeners, web- and book-based problem solving (77 slides). Separate Marion and Polk County versions to reflect different resources. Version developed in 2007 includes a series of hands-on worksheets to enable class members to actually use the books to answer a series of worksheet questions.

viii. Propagation module (Bell 2006). I prepared a new module, entitled *Growing from Seed*, for the propagation session of MG training in Marion County. The module consists of 32 slides. The module was originally prepared in 2003 and was revised in 2006.

Prior to last promotion:

ix. Annuals/Perennials/Shrubs training module (Bell and McMahan 2004). A module developed originally in 2002. It now consists of two sections, collectively totaling 113 slides.

x. Pesticide on-line training module (Bell, 2001). I reviewed the Master Gardener online Pesticide Training module from the University of Minnesota, and adapted that for use by Oregon Master Gardeners as part of an overall online training course.

iv. Graduate and Undergraduate Students and Postdoctoral trainees:

Summer 2009. Diana Colvin, Clackamas Community College Collaborative work experience intern at NWREC.

v. Team or Collaborative Efforts:

Collaborative Teaching:

i. Portland public schools IPM training (2013). Co-taught this 2-day training with faculty from the Department of Horticulture and Integrated Plant Protection Center (IPPC). 35 attendees from various school districts.

ii. *Digger* magazine articles on problem diagnosis (2008-2009). I proposed developing a series of 5-6 articles for the Oregon Association of Nurseries focusing on problem diagnosis for retail nurseries. I collaborated with Dr. Jay Pscheidt, Dr. Melodie Putnam, Dr. Jim Young and Dr. Gail Langellotto on the series of articles. The articles are listed in Section C.

iii. Rain Garden Guide (2010). Contributor to *The Oregon Rain Garden Guide: landscaping for clean water and healthy streams*. OSU faculty involved in this project included Robert Emanuel, Linda McMahan and Derek Godwin. Also involved were personnel from the East Multnomah SWCD.

Prior to last promotion

iv. Chemeketa Community College "Garden Basics" Workshop (2003). Along with Joan Sherf from CCC, I organized a series of talks for a 1-day workshop held at the CCC Dallas campus.

v. Northwest Gardening radio programs (2002). I collaborated with Ann Marie VanderZanden and Jan McNeilan to write and produce a series of radio programs for Northwest Gardening.

vi. Hillcrest school (2002). In collaboration with staff from the school, I conducted a workshop for the students at the school in June 2002 on soil preparation and plant propagation, whose aim was to educate the students in these techniques and facilitate development of parts of the school grounds.

vii. Correspondence curriculum review for *Pacifica*. 2002. Along with Ann Marie VanderZanden, I assisted *Pacifica*, the developing Botanical Garden in Williams, OR (Josephine County), with the review of materials for their horticultural education curriculum.

viii. MSU Global Gardening Institute online curriculum (2001). I began development with Ann Marie VanderZanden and the Gardening Institute (MI) of new online pruning training to be offered through MSU Global.

Community landscape projects:

i. Partnership with the Oregon Garden: drought-tolerant plants (2001-2014). We selected a plot of land outside the Resource Center and developed it as an educational display of drought-tolerant plants. The plot was planted in May, 2001, by Marion County Master Gardeners. Substantial revision to the plot was made in 2009 and it was replanted in July 2011. Interpretive signage was added in 2012.

ii. Collaboration with City of Monmouth Community Development (2011-12). I was asked by Mark Fancey, Community Development Director in Monmouth, OR to design a drought-tolerant, low-input landscape for three medians in the middle of Knox Street in the city. The medians have a total area of approximately 2,200 ft². The landscape was planted on May 5, 2012.

iii. Perrydale school landscape (2011). Designed a hummingbird and pollinator-attracting landscape for a courtyard at the school in Polk County. I instructed the students during the planting of this landscape.

iv. Partnership with the Oregon Garden: Parking lot landscape (2006-2013). In cooperation with staff at the Garden and Cistus Nursery (Portland), I designed and installed a new "low-input" landscape in the upper parking lots at the Garden. The area is divided into two separate rectangular plots totaling approximately 12,000 ft². Irrigation is provided to half of each of the rectangles, and growth and plant quality compared between irrigated and un-irrigated sections.

v. City of Dallas Public Works landscaping (2002-2008): In 2008, I designed and sourced plants for a new landscape in a redesign of Rotary Park in 2008. In 2005, I assisted the City with development of resource-conserving public landscapes. The two main projects were the Highway 223/Ellendale Road reconstruction project, and a planting around new tennis courts adjacent to LaCreole Avenue. Both these landscapes were planted in October-November 2005.

vi. St. Francis Shelter. In 2007, in cooperation with Marion County Master Gardeners, I designed and installed a new landscape in front of the St. Francis Shelter in South Salem. The landscape is intended to be a "low-input" landscape. A similar project was planted at the entrance to the Humane Society of the Willamette Valley in February, 2008. In June of 2008, I completed a landscape plan for a section of Riverfront Park in Independence for the Public Works department, which was planted in September, 2008.

vii. Luckiamute Valley Charter School landscape. From 2003 to 2007, I was on the landscape committee of the Bridgeport and Pedee campuses of the LVCS. In 2004, the entire landscape in front of the Bridgeport campus was redone with drought and deer resistant plants. The landscape in front of Pedee School was completely replanted in October, 2006 with my instruction.

Other:

i. Western Oregon IPM Resources Collaborative (2013-present). Collaborative effort with OSU faculty and Metro to develop a new online IPM resource for the Willamette Valley. I will offer content review as well as photos and provide content specifically on cultural and environmental plant problems.

ii. Great Plant Picks (GPP) program (2003-2014). GPP (<http://www.greatplantpicks.org/>) is a program developed by the Elizabeth C. Miller Botanic Garden in Seattle, WA. The program consists of committees of PNW horticulturists who annual evaluate trees, shrubs and perennials around the Northwest for best landscape performance and issue recommended lists. The shrub committee has visited the collections to evaluate the varieties and utilize them to make their selections for those genera. This information is distributed via print and web media to gardeners, nurseries and garden writers throughout the Northwest. The GPP shrub committee visited the *Hebe* collection and *Ceanothus* collection in 2003 and 2004, the *Cistus* and *Halimium* collection in 2006, the *Hebe*, *Cistus* and *Halimium* in May 2007, and the *Arctostaphylos* in July 2014.

iii. Sustainable Gardening (2012). As part of the development of the Oregon Master Gardener Handbook, I contributed chapters on plant problem diagnosis as well as pruning of ornamental plants. The pruning chapter was a collaboration with Kristin Ramstad of the OR Department of Forestry.

iv. Sustainable landscape research project (2008-2010). Together with Dr. Dan Sullivan (Crop and Soil Science) and John McQueen (Dept. of Horticulture), I designed and installed a new research project at NWREC to study effect of plant type and soil amendment on landscape plant growth in previously compacted soil. This was a project funded by the Northwest Biosolids Manufacturers Association.

v. Regional Plant Specialist-Nursery Management and Production magazine (2004-2009). I was the Regional Plant Specialist for the Pacific Northwest for the magazine, which is distributed to subscribers in the nursery industry throughout North America. This involved writing articles to inform subscribers on new plants.

vi. Soil sampling in post-construction landscapes (2006-07). Together with Drs. Tom Cook and David Sandrock of the OSU Department of Horticulture, and John Hart in the Crop and Soil Science Department, we sampled soils in post-construction landscapes for soil quality parameters, with the aim of assessing these soils and helping to determine how best to manage them. The work was supported by grants from the Oregon Garden SPROUT, the Benton County SWCD, and an Extension innovative grant (see "Scholarship – grants"). Sites

in Corvallis, Salem, Dallas and Portland were sampled in 2007. Results were presented at the Willamette Valley Green Industry Seminars and formed part of the new Metro IPM website on which I collaborated.

Prior to last promotion:

vii. Willamette Valley water conservation consortium. (2005-2006). This was based on the model developed in Deschutes County by Amy Jo Detweiler, who with the aid of personnel in several county cities produced a brochure on water conservation for homeowners and landscapers (*An introduction to xeriscaping in the high desert*). Together with staff from OSU Extension, Clackamas Community College, South Fork Water Board, The Regional Water Providers Consortium, The City of Corvallis and Eugene Water and Electric Board, we produced *Water-efficient plants for the Willamette Valley*, a 44 page, full-color publication (see section C).

viii. Oregon State Penitentiary, Minimum security. Along with a Marion County Master Gardener, Bonnie Young, we assisted staff and inmates at the OR State Penitentiary in 2002 with development of a garden whose purpose is to supply the kitchen at the facility with fresh produce.

f. International Training – not applicable

2. Student and Participant/Client Evaluation

i. Credit courses

Summary of student evaluations of teaching (SET)

Course	Term	Responses	Instructor rating		Course rating		
			Ind.	Univ.	Course	Hort	Univ.
Hort 349E	Sp 2014	21	5.8	5.2	5.7	5.3	5.0
	Sp 2013	16	5.7	4.8	5.7	5.2	4.9
	Sp 2012	10	5.9	4.9	5.9	5.1	5.0

ii. Non-credit Courses and Workshops (since last promotion)

Summary of citizen evaluations of teaching (CET)

Teaching event	Year	# Responses	Quality of instruction ²
Pruning Ornamentals	2014	57 (2 events)	5.8
Problem Diagnosis	2014	38	5.9
Pruning Ornamentals	2013	135 (3 events)	5.7
Pruning Ornamentals	2012	120 (3 events)	5.9
Pruning Ornamentals	2011	21	5.9
Problem Diagnosis	2011	40	5.8
Drought-resistant landscapes	2011	40	5.2
Pesticide Safety	2010	21	5.9

Pruning Ornamentals	2010	45	6.0
Berries and Grapes	2010	17	5.9
Pesticide Safety	2009	37	5.4
Pruning Ornamentals	2009	44	5.8
Problem Diagnosis	2009	42	5.9
Pesticide Safety	2008	21	3.9
Pruning Ornamentals	2008	39	3.9
Berries and Grapes	2008	15	3.9
Pesticide Safety	2007	108	3.7
Berries and Grapes	2007	70	3.8

²Rating scale is 1=poor, 6=excellent from 2009-present. Rating scale in 2007-08 is 1=poor, 4=excellent. Footnote: Rating for the Quality of educational event insignificantly from Quality of Instruction.

3. Peer Teaching Evaluations

Annual peer evaluations are in my file.

4. Advising – not applicable

5. Other Assignments

My responsibilities involve administering and providing leadership for the Marion and Polk County Master Gardener programs, including recruiting and training volunteers to answer home gardening questions from the public. I also conduct educational programs for the general public and develop collaborative programs to serve the green industry. My areas of focus are summarized below.

Marion and Polk County Master Gardener program administration

Situation:

When I assumed responsibility for these programs in May of 2000, I oversaw them together with a Program Assistant with 0.25FTE responsibility for the Polk County program. Program participation in Marion County had historically been good because the program had been under the leadership of a faculty member prior to my hire. This was not the case in Polk County, which had been without an agent for approximately 6 years. The Program Assistant had begun her responsibilities only a few months before me. The major challenges were attracting new class members and retaining existing Master Gardeners, as well as documenting volunteer hours and contacts. Other areas of the program which required attention involved development of resources for outreach, as well as new programs to reach previously underserved audiences and provide interesting volunteer opportunities to broaden the programs' appeal and increase retention.

Approach:

When I began in this position I worked with advisory boards and committees in each County and developed a needs assessment based on members' input and discussion with members of the home horticulture working group in the Department of Horticulture. In order to clarify

the expectations of the program, I have written or revised several informational letters describing the MG Program to potential trainees. These include writing an info-letter, which is mailed to people who request more information about the MG Program. I also revised the letter sent out with application forms and the letter sent out to new trainees announcing acceptance into the Program so that expectations are clear before classes start. Master Gardener trainees do a separate orientation in December immediately prior to the start of classes. I produced the Survival Manual, which is a resource for members of the new class of Master Gardeners, based on a model obtained from Hood River County and developed jointly by myself, the Polk County Program Assistant and Master Gardeners in both Counties. The manual contains information on the training program and payback, required forms, MG projects in both counties as well as other MG activities such as chapter and board meetings. It is a fundamental resource for new class members as well as veterans. We also produced specific training materials for Desk Duty in the office, where volunteers assist homeowners with questions. In order to make this as stress-free as possible, part of these materials involves the use of a comprehensive check-in sheets, as well as regular revisions of book and web-based resources.

I also instituted a program of recertification for Master Gardeners. Since 2002, we have had a recertification requirement for Master Gardeners in Marion and Polk Counties. Veteran Master Gardeners must complete 12 hours of approved educational training in order to be recertified to serve on the desk or at clinics. Approved training includes Master Gardener classes, seminars and workshops. There had been no recertification requirement in either county for many years. Since my last promotion, 686 Master Gardeners in Marion and Polk Counties have recertified.

For program delivery we have developed demonstration gardens in both counties, The Marion Garden (1.75A, established 2000) in Salem and the Inspiration Garden (6.0A, established 2012) in Independence. Volunteers are largely responsible for development of these gardens but as in other instances I have altered volunteer hour expectations to permit development of these resources. Both these gardens contain trees, shrubs, perennials, tree fruit and berry plants in themed areas. The gardens are venues for workshops and open houses for the public. Since my last promotion, the Marion Garden resources have been used for 21 workshops and open houses with a total of 420 attendees.

Other programming has focused on utilization of technical skills of Master Gardeners to provide outreach to underserved audiences. In Marion County, a community garden consultation program now provides Master gardeners as technical advisors to new gardens throughout the county. Education programs are delivered through the Speakers Bureau and include horticulture education for youth and adults incarcerated in Salem-area institutions.

Outcomes and impact:

In general, the class size in both counties have remained more or less consistent over the years, but overall membership has increased, because volunteer retention has improved. The number of volunteer hours contributed on community projects has also significantly increased over the years in both counties.

The average number of volunteer hours contributed in both Marion and Polk Counties since I was last promoted is 20,779 hours/year. This is the equivalent of 10.0 FTE per year, with a value of approximately \$440,000/year to OSU. Development of community gardens and outreach by me and the Master Gardeners has increased the visibility of the Master Gardener Program and OSU Extension, and the program has improved access/outreach to underserved audiences.

Master Gardener program participation and outcomes

Year	County	#class members	#chapter members	#volunteer hours	#public contacts
2013	Marion	25	214	11,765	3,416
	Polk	11	148	7,129	1,215
2012	Marion	35	226	12,085	3,825
	Polk	18	155	7,655	2,128
2011	Marion	27	206	11,776	4,173
	Polk	13	158	6,911	1,999
2010	Marion	27	203	13,620	3,517
	Polk	13	151	9,710	2,723
2009	Marion	35	217	12,345	4,924
	Polk	19	149	9,061	2,879
2008	Marion	26	206	10,158	3,618
	Polk	20	141	11,180	3,060
2007	Marion	28	197	13,062	4,407
	Polk	18	139	9,000	2,200

Prior to last promotion

2006	Marion	37	203	10,696	7,894
	Polk	14	137	9,000	2,100
2005	Marion	38	181	10,013	5,760
	Polk	20	119	7,215	2,352
2004	Marion	36	161	9,522	7,615
	Polk	28	111	5,100	2,456
2003	Marion	43	199	9,139	7,678
	Polk	23	112	6,391	2,324
2002	Marion	47	185	6,250	5,409
	Polk	27	98	5,700	2,060
2001	Marion	41	na	7,060	5,799
	Polk	23	na	5,111	722

Pacific Northwest Insect Management Handbook

Situation:

The Pacific Northwest Insect Management Handbook is a collaboration between Oregon, Washington and Idaho Extension faculty and other authors. It provides insect management information for commercial fruit, nut and vegetable growers and livestock producers as well

as landscapers, retail nursery employees, Master Gardeners and homeowners. The publication is revised annually. This is the major resource for landscapers, retail nursery employees, Master Gardeners and homeowners in these three states for insect management information in the home and garden. For these clientele, an effective resource should include information on pest identification, life cycle and biology of the pest, cultural and biological management information, as well as currently-registered home garden insecticides, both organic and synthetic. When I assumed my current position in 2000, the home garden sections of the handbook, which encompassed Tree Fruit and Nuts, Small Fruit, Vegetables and Turf, consisted almost exclusively of insecticide recommendations for control of individual pests, with none of the other information needed by users. A section on management of landscape pests for homeowners did not even exist. With feedback from advisory boards and community horticulture colleagues, and in collaboration with faculty at Washington State University, I undertook to drastically increase the usefulness and content of this fundamental resource.

Approach:

I completed a total revision of the home garden and home landscape pest sections of the 2003 PNW Insect Management Handbook in collaboration with Dr. Art Antonelli and Kerry Retzel of WSU. I have assumed lead authorship of the home garden section of this handbook. Major changes for the 2003-14 versions included the following:

- Insertion of information on pest description and crop damage; biology and life history of pest; scouting and thresholds; and biological, cultural and review of chemical control information throughout the section. Most of this information was previously scarce or absent altogether.
- Reorganization of the home landscape section on a host-pest format, instead of the previous format, which was only 3 pages long and consisted of only general descriptions of individual pests.
- Total revision of all pest management product tables at the beginning of each section. These were revised to reflect currently available products, and indicate important characteristics of each, including pesticide class, toxicity, mode of action and general comments.
- Addition of Latin binomials for pests in the vegetable, small fruit and tree fruit sections, which allowed these sections to link to images of these pests on the online version of the books.
- The home garden section of the handbook was expanded from 23 pages in the 2002 edition to 143 pages for the 2003.

Changes to the 2005 through 2009 editions involved adding specific crop-pest combinations that were absent from previous versions but known problems in the PNW. The other major change was researching a new Home Turf section for the 2007 Handbook. Home and Commercial sections of the Handbook were combined for the 2011 edition, significantly increasing the number of listed host-pest combinations in each section as well as content overall.

Annual revisions to the book include adding content and I am also responsible for checking currently registered pesticides for all entries in each of these sections utilizing PICOL, the

Pesticide Information Center Online database. In 2013, organic and low-risk ingredients were researched and designated in each Handbook chapter.

In the 2014 edition of the Handbook the sections for which I am author or co-author (providing all home garden content) are: Turfgrass, Nut Crop (Walnut, Chestnut, Hazelnut), Small Fruit Crops (Blueberry, Cane Fruit, Currant and Gooseberry, Grapes, Strawberry), Tree Fruit Crops (Apple, Apricot, Cherry, Peach and Nectarine, Pear, Plum and Prune), Vegetable Crops and Irish potatoes.

Outcomes and impact:

To provide feedback on the value of these changes to clientele, a simple survey was forwarded to community horticulture faculty and other users of the book in 2013, asking them to rate changes to the biology and life history, biological control scouting and thresholds and cultural control information in the Handbook.

A total of 15 responses were received. 7 participants were tenure track faculty, 4 were non-tenure track faculty, 1 was classified staff and 3 were volunteers.

In answer to the usefulness, understandability and sufficiency questions about changes to the biology and life history content, all participants ranked the changes as "good" or "very good" (the highest ranking) to all three questions. In answer to the usefulness, understandability and sufficiency questions about changes to the biological control information, 13 out of 15 participants ranked the changes as "good" or "very good" to all three questions. 2 participants rated the changes as "fair". In answer to the usefulness, understandability and sufficiency questions about changes to the scouting and thresholds content, all participants ranked the changes as "good" or "very good" to all three questions. In answer to the usefulness, understandability and sufficiency questions about changes to the cultural control content, all participants ranked the changes as "good" or "very good" to all three questions.

Northwest Plant Evaluation

Situation:

One area of focus that has provided an opportunity to serve the public and the green industry, and involve the Research Faculty at OSU, Master Gardeners and the nursery industry over the last 14 years has been the development of several plant evaluations at the North Willamette Research and Extension Center (NWREC) and at the Oregon Garden. The original goal of these evaluations was to research the hardiness of *Hebe*, a genus of flowering shrubs native to New Zealand which are very popular and showy, but which in many cases lack sufficient cold hardiness for landscape use in western Oregon. The overriding goal of all subsequent trials has been to develop fully drought-tolerant, hardy shrubs, especially groundcovers, for use in "low-input" Northwest landscapes. Development of genuinely low-input landscapes for western Oregon will require use of drought-tolerant, evergreen groundcovers, few of which are currently used in local landscapes because data on their adaptability to local conditions are not available. As a result, landscapers tend not to request these plants and nurseries do not grow them in the absence of these data. Instead, better known but poorly adapted species are used which tend not to thrive without

significant inputs of water, fertilizer, pesticides and labor. Local evaluations of drought-tolerant, evergreen groundcovers would provide gardeners and landscapers with data on plant adaptability to this region and provide nurseries with access to plants for propagation.

Approach:

In this program I led the evaluation of cultivars and species of *Hebe* (2000-2009), *Cistus* (2004-2009), *Ceanothus* (2001-2005), and *Halimium* (2004-2009) to determine plant growth, hardiness and overall quality in western Oregon. In each case, cooperators, domestic and international, provided plant material which was propagated, grown on and planted out at NWREC for evaluation in the field. Data on each plant group are acquired over several years and included plant size, flowering and overall landscape worthiness, as well as cold hardiness ratings. Similar evaluations of *Grevillea* and *Arctostaphylos* were planted out in 2011 and data collection continues on those.

Marion County Master Gardeners have assisted with plot establishment, maintenance as well as data collection on all of these evaluations.

Outcomes and impact:

These trials have been established and maintained with over \$53,000 in grant funds since their inception (see C.3). All information on the evaluations is available at the Northwest Plant Evaluations website, <http://horticulture.oregonstate.edu/content/northwest-plant-evaluation-program>, which is updated with results by me regularly (see C.1.v.b). As results have become available, I have shared the evaluations in popular and trade publications such as *Digger*, *Nursery Management and Production (NMPro)*, and *Pacific Horticulture* (see section C.1.b). The *Cistus*, *Halimium* evaluation and the *Ceanothus* evaluation were published in refereed journals (see C.1.a). I was also lead author, with Tom Saucedo (U. C. Santa Cruz Arboretum), on a chapter in *Hebes-shrubs for all seasons*, by Lawrie Metcalf (Timber Press, Portland, OR, 2006) [see C.1.a].

The evaluations have received media attention from television and radio as well as print sources (see C.1.b). Various enthusiast and gardening groups have toured the planting and I have presented results to similar audiences as well as at professional meetings (see C.2). The Great Plant Picks program of Elizabeth C. Miller Botanical garden in Seattle has visited each of these evaluations and included what they regard as superior forms in their own list of plant recommendations for Pacific Northwest growers and gardeners which they release annually (<http://www.greatplantpicks.org/>).

Specific cultivars of these genera identified in these evaluations have been utilized with suitable companion plants in a variety of un-irrigated landscape projects around Marion and Polk Counties. We have installed landscapes at the St. Francis Shelter in Salem (2007), the Oregon Garden in Silverton (2007), the Willamette Valley Humane Society in Salem (2008), Rotary Park in the City of Dallas (2008) and most recently in collaboration with the City of Monmouth (See B.1.iv).

One of the specific goals of the program is to introduce new cultivars into the nursery trade at both the retail and wholesale level in order to encourage landscape use of the plants. As

of 2010, 7 retail and 8 wholesale nurseries in Oregon, Washington and California have taken cuttings from these evaluations to date and are known to be growing and marketing these cultivars. The nurseries are each growing and selling an average of 11 *Hebe* cultivars, 14 *Cistus* and 4 *Halimium*, specifically derived from the evaluation trials. A nursery (Xera Plants, Sherwood, OR) named and is selling a *Grevillea* selected from one of my trials as a new cultivar 'Neil Bell'.

Plant problem diagnosis for clientele

Situation:

When I assumed my current responsibilities in May of 2000, I discovered that although Master Gardener class members received training in diverse areas such as plant disease, entomology, weed management, integrated pest management and pesticide safety, among other pest-management related courses, there was no curriculum instructing them specifically on the *process* of diagnosing plant problems. The curricula of the existing courses often focus broadly on these topics, emphasizing the characteristics of insect orders or classes of disease-causing organisms. However, what these courses did not do is instruct students on how to gather information systematically about a plant problem in order to determine which of the many potential causes (insect, disease, vertebrate pest, cultural or environmental problem) was actually responsible for the damage they were presented with. For Master Gardeners assisting clientele with problems in their gardens, a curriculum was needed that provided them with a means to differentiate between the many potential causes of a plant problem in any given landscape. The importance of this is that between Marion and Polk Counties, Master Gardeners assist approximately 2,500 clientele per year with plant problems through the Extension office.

Approach:

I based this new curriculum originally on *A systematic approach for diagnosing plant problems*, originally developed for diagnosing problems in ornamental nursery stock. It consisted of a series of questions to ask about a specific plant problem, which would allow one to gather information on symptoms and signs and by doing so gradually narrow down the potential cause of the problem. With some slight modifications, this series of questions was applicable in both home garden, landscape and nursery situations, and could even be applied in natural environments regardless of location. To illustrate this new curriculum, I began taking photos of plant samples brought to the Marion and Polk County Extension offices. I supplemented these photos with other plant problems I observed in landscapes and those images emailed to me or the Master Gardeners in the office. I also began making house calls to clients who seemed to have particularly interesting and intractable plant problems. These house calls provided the client with excellent service, but more importantly were often the only way to solve difficult plant problems and allowed me to accumulate a library of landscape and garden images for use in this new curriculum. This library of plant problems now exceeds 2,500 images spanning all conceivable types of problems. These images were used to illustrate the lectures emphasizing the systematic process for a new Master Gardener plant problem diagnosis curriculum as well as accompanying exercises.

Outcomes and impact:

I produced a new 6-hour Powerpoint curriculum for Master Gardener training in 2003 (see B.1.iii) and have updated this annually with new imagery. I have delivered this program in my own counties each year and also for other faculty around the state (see B.1.ii). In 2010, I expanded this into a three-day credit course for Chemeketa Community College and offered that in the fall term. In 2011, I began development of a new 3-credit course for E-campus, which required further expansion of the curriculum and the development of new exercises and exam materials. This credit course, Hort 349, was offered by myself as lead instructor with the assistance of Dr. Jay Pscheidt in spring term 2012, and subsequently offered again in 2013 and 2014 (see B.1.ii). A non-credit version of this curriculum, entitled Plant Disease Certificate, debuted through Professional and Continuing Education (PACE) in fall 2013. PACE also now offers each individual week of the full Certificate as self-paced modules starting in 2014. Students taking these courses have come from more than 20 states and 2 international countries. Student evaluation of teaching (SET) results are in B.2.i.

The courses received press in the August 2014 issue of the OAN Digger magazine, in which contributor Mike Darcy remarked in his column *What I'm hearing* "...when I am sent photos of plant problems, using Bell's systematic approach is how I arrive at an answer".

C. SCHOLARSHIP AND CREATIVE ACTIVITY

My position description includes no expectation of scholarship; however I have developed and delivered programs that have led to scholarly outcomes.

1. Publications

Summary of peer-reviewed papers

Time Frame	Refereed Papers	Book Chapters	Extension Publications	Other peer-reviewed material
Since last promotion	2	0	13	9
Before last promotion	1	1	9	6
TOTAL	3	1	22	15

a) Peer-reviewed

i. Refereed Publications

Bell, N. and J. Altland. 2010. Growth, flowering and cold hardiness of Rockrose in western Oregon. *HortTechnology* 20(3):652-659.

Role: I developed the trial, sourced plants, solicited funding, and wrote the first draft of the paper.

Bell, N. 2009. Evaluation of Growth, Flowering and Cold Hardiness of ceanothus in Western Oregon. *HortTechnology* 19(2):411-417.

Prior to last promotion

VanDerZanden, A.M., L. R. McMahan, N. Bell, P. Ries, P. Williams and A. McAuliffe. 2006. A collaborative effort to train Green Industry professionals. HortTechnology. 16(1): 143-145.

Prior to hire in present position

Strik, B., P. Stonerod, N. Bell, and H. Cahn. 1998. A comparison of annual and perennial production systems in 'Redcrest' June-bearing strawberry for a processing market. Adv. Strawberry Res. 17: 18-24.

Strik, B., P. Stonerod, N. Bell, and H. Cahn. 1996. Alternative production systems in perennial and annual culture of June-bearing strawberry. Acta Hort. 439:433-437.

Bell, N., B.C. Strik, and L.W. Martin. 1995. Effect of primocane suppression date on 'Marion' trailing blackberry. I. Yield Components. J. Amer. Soc. Hort. Sci. 120(1): 21-24.

Bell, N., B.C. Strik, and L.W. Martin. 1995. Effect of primocane suppression date on 'Marion' trailing blackberry. II. Cold Hardiness. J. Amer. Soc. Hort. Sci. 120(1): 25-27.

Hummer, K.E., V. Peters, L.H. Fuchigami, and N. Bell. 1995. Cold Hardiness in Rubus. Fruit Var. J. 49(1): 52-58.

Bell, N. and B. Strik. 1993. Effect of primocane renovation date on yield components of 'Marion' blackberry. Acta Hort. 352:29-36.

ii. Book Chapter

Bell, N and T. Saucedo. 2006. Hebes around the world-North America. In: *Hebes-Shrubs for all seasons*. L. Metcalf (Ed.). Timber Press, 260pp.

iii. OSU Extension Publications

Bell, N, A. Detweiler, H. Noordijk and C. Bubl. 2014. EC 1333. *Grow your own tomatoes and tomatillos*. (Revised, September 2014)

Bell, N, A. Detweiler, H. Noordijk and C. Bubl. 2014. EC 1333-S. *Cultive sus Propios Tomates y Tomatillos (Grow your own tomatoes and tomatillos)*

Bell, N. 2014. PNW Insect Management Handbook. Lead author on home garden content for the following chapters: Nut Crops, Small Fruit Crops, Tree Fruit Crops, Vegetable Crops and Turfgrass Pests. Co-authors for these chapters vary depending on the individual host plant. (Revised in 2003-2013) [total number of publications=12]

Role: In addition to providing content, I serve as the editor for the home garden portion of the above listed sections. See Section B.5. for further information.

Pscheidt, J., N.Bell, J. Olsen and S. Castagnoli. 2010. EC 631. *Managing Diseases and Insects in home orchards*. (Revised).

Bell, N, D. Sullivan and T. Cook. 2009. EC 1629-E. *Mulching woody ornamentals with organic materials*.

Pscheidt, J., N.Bell, J. Olsen and S. Castagnoli. 2007. EC 631. *Managing Diseases and Insects in home orchards*. (Revised).

Prior to last promotion

Bell, N., A-M VanderZanden and L. McMahan. 2004. Water Efficient Landscape Plants. EC 1546. (Revised).

Pscheidt, J., J. D. DeAngelis, N. Bell, J. Olsen and S. Castagnoli. 2003. EC 631. *Managing Diseases and Insects in home orchards.*

Bell, N., D. Sullivan, L. Brewer and J. Hart. 2003. EC 1561. *Improving garden soils with organic matter.*

Bell, N., A-M VanderZanden and L. McMahan. 2001. Water Efficient Landscape Plants. EC 1546.

Educational publications

Emanuel, R., D. Godwin, C. Stoughton. 2010. *The Oregon Rain Garden Guide*. 44 page full-color publication that was a collaboration between OSU and the East Multnomah Soil and Water Conservation District. I am listed as a "significant contributor".

Bell, N. 2009. *Pruning Ornamental Plants*. Oregon Certified Nursery Professional manual

Bell, N., E. Howley, P. Breen, L. McMahan et al. 2006. *Water-efficient plants for the Willamette Valley*. A 44 page, full-color publication that was a collaboration between OSU Extension, Clackamas Community College, South Fork Water Board, The Regional Water Providers Consortium, The City of Corvallis and Eugene Water and Electric Board.

McPherson, E.G., S. Maco, J.R. Simpson, P.J. Pepper, Q. Xiao, A.M. VanderZanden and N. Bell. 2002. Western Washington and Oregon Community tree guide. PNW Chapter International Society of Arboriculture. 76pp.

Agricultural Experiment Station publications

Bell, N., E. Nelson, B. Strik, and L. Martin. 1992. Assessment of winter injury to berry crops in Oregon, 1991. OSU Agriculture Experiment Station Special Report #902.

v. Proceedings articles

Bell, N, J. Owen and J. Altland. 2012. Selection of groundcovers for low input landscapes in temperate Mediterranean climates. Proceedings of the International Symposium on advances in ornamentals landscape and urban horticulture. Acta Hort. 937:1033-1039.

Bell, N. 2008. Sure they will grow here: evaluating *Hebe*, *Cistus* and *Ceanothus* in western Oregon. Combined Proc. I.P.P.S. 57:75-79

Prior to last promotion:

Rosetta, R., T. Collins, N. Bell and S. Svenson. 2001. Insecticide efficacy for control of adult root weevils on rhododendron. Proc. South. Nurs. Ass. Res. Conf. 46.

Rosetta, R.L., S.E. Svenson and N.C. Bell. 2000. Evaluation of three soil-applied insecticides for root weevil control in container grown nursery crops. Proc. South. Nurs. Ass. Res. Conf. 45: 202-205.

Svenson, S., N. Bell, T. Collins and A. Henderson. 2000. Using flat-roof retractables to reduce substrate temperatures of container grown nursery crops. Proc. South. Nurs. Ass. Res. Conf. 45: 106-108.

Bell, N, R.L. Rosetta and T.L. Collins. 2000. Investigation of soil-applied pesticides for control of honeylocust pod gall midge, *Dasineura gleditschiae*. Research Reports: 59th Annual Pacific Northwest Insect Management Conference, Portland, OR.

(Prior to hire in present position):
19 proceedings articles.

vi. Abstracts from conferences without proceedings

Bell, N. and J. Altland. 2009. *Cistus* and *Halimium* species and cultivars grow and flower well in western Oregon. *HortScience*. 44(4):1178.

Bell, N. 2007. *Ceanothus* species and cultivars grow and flower well in Western Oregon landscapes. *HortScience*. 42(4):950.

Prior to present position:

R. Rosetta, S. Svenson, and N. Bell. 1999. Assessment of insecticide efficacy for root weevil control. *HortScience* 34(3): 444.

Rosetta, R.L., S.E. Svenson and N.C. Bell. 1998. Evaluation of three soil-applied insecticides for root weevil control in container-grown nursery crops. *HortScience* 33(3): 485.

Svenson, S.E., N. Bell and A. Henderson. 1998. Cold-trapping in retractable roof structures to avoid spring frost damage of container-grown nursery crops. *HortScience* 33(3): 473

Strik, B., N. Bell, and G. Koskela. 1995. Date of renovation affects yield and cold hardiness of strawberry. North Amer. Strawberry Conference, Orlando, FL, Feb. 14-18, 1995.

Bell, N., B. Strik, and L. Martin. 1994. Effect of date of primocane suppression on 'Marion' trailing blackberry. *HortScience* 29(5):565.

Strik, B., N. Bell, and G. Koskela. 1994. Date of renovation affects yield and cold hardiness of strawberry. *HortScience* 29(5):564.

Bell, N. and B. Strik. 1993. Effect of primocane suppression on yield and cold hardiness of 'Marion' blackberry. *HortScience* 28(5):475.

Hummer, K.E., L.H. Fuchigami, V. Peters, and N. Bell. 1992. Survey of *Rubus* cold hardiness. *HortScience* 27(6):124.

b) Other publications

i. Industry, non-peer-reviewed articles:

Bell, N. 2014. Identifying good plants for Pacific Northwest gardens: The Northwest Plant Evaluation program. *Pacific Horticulture*. 75(3): 9-11.

Bell, N. 2013. Monmouth streetscape. *Pacific Horticulture*. 74 (3): 28-30

Sullivan, D., N. Bell, J. Owen and J. Kowalski. 2009. Compost effects on first-year plant growth in compacted urban soil. *Biosolids Bulletin*. December.

Bell, N. J. Young and M. Putnam. 2009. Asking the right questions. *Digger*. May. 53(5):49-53.

Bell, N. J. Young and M. Putnam. 2009. The root of the problem. *Digger*. March. 53(3): 49-53

Bell, N. 2008. Learning to apply customer plant remedies. *Digger*. November. 52 (11):39-43.

Bell, N. 2008. *Grevillea* offer attractive Aussie shrub offerings for the Pacific Northwest. *Nursery Management and Production*. September. 24 (9):73-75.

- Bell, N. 2008. Alternative groundcovers exist for the Pacific Northwest. *Nursery Management and Production*. March. 24 (3):81-83.
- Bell, N. 2007. Ceanothus and Cistus for colder climates. *Digger*. December. 51 (12):20-22, 24.
- Bell, N. 2007. In search of hardier Hebes. *Digger*. November. 51 (11):45-49.
- Bell, N. 2007. The other rockroses: Halimium and XHalimocistus. *Pacific Horticulture*. April-June. 68(2):16-20.
- Bell, N. 2007. Shrub daisies pack a punch in the landscape. *Nursery Management and Production*. May. 23 (5):14-15, 72-73.
- Bell, N. 2007. Many shrub daisy species deserve more U.S. garden use. *Nursery Management and Production*. April. 23 (4):12, 68-69.

Prior to last promotion:

- Bell, N. 2006. Olearia x mollis. *Nursery Management and Production*. December. 22 (12):6.
- Bell, N. 2006. Penstemon azureus. *Nursery Management and Production*. October. 22 (10): 6.
- Bell, N. 2006. Currants and gooseberries give us springtime goosebumps. *Nursery Management and Production*. September. 22(9):12-13, 81.
- Bell, N, 2006. Ribes malvaceum. *Nursery Management and Production*. June. 22(6):6.
- Bell, N. 2005. Rockroses lend Mediterranean flair to low-water landscapes. *Nursery Management and Production*. December. 21(12):14-15, 78-80.
- Bell, N. 2005. Fall and winter interest from Hebes. *The Hebe News*. 20(4):9-11.
- Bell, N. 2005. Berberis calliantha. *Nursery Management and Production*. August. 21 (8).
- Bell, N. 2005. Old favorites, new alternatives provide winter-blooming delights. *Nursery Management and Production*. February. 21 (2):12.
- Bell, N. 2004. New *Ceanothus* varieties can withstand tough, dry locations. *Nursery Management and Production*. November. 20 (11):10-11, 68-69
- Bell, N. 2004. Hebes for fall and winter color. *Pacific Horticulture*, October-December.
- Bell, N. 2004. Colorful, hardy new Hebes show promise for the Northwest. *Nursery Management and Production*. August. 20 (8):14-15, 78-81.
- Bell, N. and J. Altland. 2004. More rockroses for the Pacific Northwest. *Digger*. August. 48 (8):67-74.
- Bell, N and M. Jensen. 2003. Out of the Blue-*Ceanothus* is a beautiful water-wise choice for Northwest gardeners and landscapers. *Digger*. August. 47 (8):38-43.
- Bell, N. 2002. Are Hebes hardy? *Digger*. December. 46 (12):27-30
- Bell, N., S. Hogan and W. Harris. 2000. Hardy New Zealanders for Pacific Northwest Gardens. *Pacific Horticulture*, January/February/March.

(Prior to hire in present position):

6 articles total.

ii. Newspaper articles

Master Gardener Question of the week. 2003-present. Statesman Journal Real Living, Salem, OR. Article consists of approximately 190 words and accompanying image supplied by me. Published weekly throughout the year (a total of 546 columns total, 390 since my last promotion)

Prior to last promotion:

In Season. Statesman Journal Real Living, Salem, OR. 2005. Monthly articles, May, June, July, August, September, Oct (approximately 300-350 words and accompanying image supplied by me).

In Season. Statesman Journal Real Living, Salem, OR. 2004. Nov 19th and January 2nd (approximately 300-350 words and accompanying image supplied by me)

Local tree has intriguing roots. The Polk County Itemizer-Observer, Dallas, OR. 2001. June 27-July 4.

Pyrethroids less toxic alternatives to banned insecticides. 2001. Business Section, Statesman-Journal, Salem, OR, May 29.

Hometown Treasures. The Polk County Itemizer-Observer, Dallas, OR. 2001. January 24-30.

Color in Winter. The Polk County Itemizer-Observer, Dallas, OR. 2001. January 10-16.

Oregon growers may get plants from California, Chile. 2000. Business section, Statesman-Journal, Salem, OR, December 26.

Master Gardener program serves the gardeners of Oregon. Statesman-Journal, Salem, OR. 2000. June 6.

iii. Newsletter articles

Monthly Master Gardener newsletters *The Garden Gate* (Marion County) and *The Weed* (Polk County). Topics vary by month, about 400 words per article. 56 articles since last promotion

Prior to last promotion:

Monthly Master Gardener newsletters *The Garden Gate* (Marion County) and *The Weed* (Polk County). Topics vary by month, approximately 400 words per article. 42 articles since hire.

iv. Ask an Expert

247 enquiries answered from 2011 to the end of July 2014.

v. Web sites

Northwest Plant Evaluations. New website that I developed. This website is part of the Horticulture Department website and provides descriptions of ongoing and completed plant evaluations conducted since 2000. The evaluations include *Hebe*, *Ceanothus*, *Cistus*, *Halimium*, *Grevillea* and *Arctostaphylos*. The site includes descriptions of each genus, results and discussion of recommended cultivars, as well as references for further information. Updated information on results as well as a new page on the *Grevillea* project added in 2013. <http://horticulture.oregonstate.edu/content/northwest-plant-evaluation-program>

vi. Media interviews:

a) Newspaper:

Five ways to care for your landscape in a dry spell. Statesman-Journal, Salem, OR, July 11th, 2014
Winter color possible for your garden. Polk Itemizer-Observer. January 22nd, 2014.
Student project brightens Knox Street. Statesman-Journal, Salem, OR, May 16th, 2012.
Nourishing nettles. Polk Itemizer-Observer. April 18th, 2012.
Waterlogged. Real Living, Statesman-Journal, Salem, OR, January 20th, 2012
Rose Invaders. Real Living, Statesman-Journal, Salem, OR, April 9, 2010
Fruit growers bracing for fly infestation. Polk Itemizer-Observer. April 7th, 2010
Cash crops. Real Living, Statesman-Journal, Salem, OR, May 8, 2009.
After the storm. Real Living, Statesman-Journal, Salem, OR, January 2, 2009.
Spread the wealth. Home and Garden monthly. Eugene Register-Guard. July 19th. 2007.
Got the Hebe-jeebies?. Homes and gardens of the Northwest. The Oregonian. July 5th 2007.
Pruning made easy. Northwest Senior and boomer news. February 2007.

Prior to last promotion:

23 articles total from date of hire in Salem Statesman-Journal, Albany Democrat-Herald/Corvallis Gazette-Times, The Oregonian and The Capital Press.

ii. Television:

New Cistus for gardens. *The Mike Darcy Show.* Comcast 14. June 15, 2007.

Prior to last promotion:

Cistus research. *In the Garden with Mike Darcy.* KATU 2, Portland. May 22, 2005.
New Plants. *In the Garden with Mike Darcy.* KATU 2 Portland. April 3, 2005.
Hebes. *In the Garden with Mike Darcy.* KATU 2, Portland. August 15, 2004.
Soil Amendment for gardeners. PBS Smart Gardening. February 14, 2004.
Pruning ornamentals. PBS Smart Gardening. April 10, 2004.
Ceanothus for the garden. Good Day Lifestyles, KPTV Fox 12. October 18, 2003.
The NWREC Winter Garden. Good Day Lifestyles, KPTV Fox 12. January 17, 2003.
Hebes for the Northwest landscape. In the garden with Mike Darcy. KATU 2. Sunday, October 27, 2002.

b) Radio:

Cold injury to landscape plants. *In the Garden with Mike Darcy.* KXL 750, Portland. January 11th, 2014.
Pruning Hebes. *In the Garden with Mike Darcy.* KXL 750, Portland. July 5th, 2014
Grevillea etc. *In the Garden with Mike Darcy.* KXL 750, Portland. June 23rd, 2012.
Plant problem diagnosis. . *In the Garden with Mike Darcy.* KXL 750, Portland. November 12, 2011.
Manzanitas. *In the Garden with Mike Darcy.* KXL 750, Portland. September 24, 2011.

Winter-blooming shrubs. *In the Garden with Mike Darcy*. KXL 750, Portland. December 19, 2009.

Shrubs that take the heat. *In the Garden with Mike Darcy*. KXL 750, Portland. August 1, 2009.

What to do in the garden in June. KBZY 1490, Salem, OR. May 28, 2009.

What to do in the garden in January. KBZY 1490, Salem, OR. January 3, 2008.

Plant evaluations at Oregon State University. *In the Garden with Mike Darcy*. KXL, Portland. February 2, 2008.

Ceanothus for the garden. *In the Garden with Mike Darcy*. KXL, Portland. November 3, 2007.

Cold-averse plants warm up to a new home. *Morning Edition*, National Public Radio. June 28, 2007.

Prior to last promotion:

Plants for 2007. *In the Garden with Mike Darcy*. KXL, Portland. December 30, 2006.

Plants for 2006. *In the Garden with Mike Darcy*. KXL, Portland. December 31, 2005.

Visiting an old-growth stand of Monkey Puzzle in Chile. KBZY 1490, Salem, OR. December 29, 2005.

New plants. *In the Garden with Mike Darcy*. KXL, Portland. April 2, 2005.

Port Orford Cedar root rot. *In the Garden with Mike Darcy*, KXL 750. December 20, 2003.

Ceanothus for the garden. *In the Garden with Mike Darcy*, KXL 750. June 21, 2003.

Pruning your yard. KBZY 1490, Salem, OR. January 23, 2003.

Soil amendment for gardeners. KBZY 1490, Salem, OR. July 25, 2002.

Winter-flowering shrubs and perennials. KBZY 1490, Salem, OR. December 20, 2001.

Spiders of the home and garden. KBZY 1490, Salem, OR. October 18, 2001.

Seminars upcoming at Agfest. KBZY 1490, Salem, OR. April 18, 2001.

c) Magazine:

Prior to last promotion:

An industry blooms in Portland. Oregon's Agricultural Progress. Summer 2003. 49 (2):16-21.

d) Web Simulcast:

Prior to last promotion:

Northwest Gardening. Corvallis, OR. April 25, 2002.

e) OSU Garden Packet: (weekly press release to newspapers, also posted on OSU website)

It's easy and fun to make extra plants from cuttings. November 2013.

Nine questions to ask to diagnose a plant problem. October 2013.

How to grow a potted tree on your patio or porch. November 11, 2009.

Your mulching questions answered. April 17, 2009.

Prior to last promotion:

Cistus shrubs can thrive in western Oregon's summer drought. December 8, 2006.

Plant Jasmine to scent up garden evenings. February 10, 2006.

Winter trees have subtle beauty in bark. December 23, 2005.
Ceanothus flowering shrubs are stunning in PNW gardens. December 30, 2004.
Does your garden soil have enough organic matter? October 22, 2004.
Winter blooming flowers can brighten cold gray days. September 24, 2004
How to grow a potted tree on your patio or porch. February 7, 2003.
The Oregon Garden's research connection. June 14, 2002
Winter trees have subtle beauty in bark. November 11, 2001.
Oriental and Asiatic lilies thrive in Oregon gardens. August 24, 2001
Drought-hardy Ceanothus meet the test in Oregon. August 10, 2001
Winter-blooming flowers brighten cold gray days. January 26, 2001
Plants can suffer from summer sunburn. August 4, 2000

2. Presentations

I have given 13 oral presentations to peers at professional meetings since I was last promoted, 8 of which were invited.

i. Summary table of oral presentations to peers at professional meetings

Year	Within region	National	International	TOTAL	Invited
2013		2		2	1
2012	2	1		3	3
2011			1	1	
2010			1	1	
2009		2		2	2
2008	1			1	
2007	2	1		3	2

Examples of oral presentations delivered to peers at recent professional meetings

Bell, N. 2013. Diagnosing plant problems: distinguishing symptoms from pest signs. Focus on Farming Conference, Everett, WA (invited).
 Bell, N. 2013. Northwest Plant Evaluations. International Trials Conference. Kennett Square, PA
 Bell, N. 2012. Lessons learned by a first-time online Instructor. E-campus Faculty Forum. Corvallis, OR (invited).
 Bell, N. 2011. Selection of drought-tolerant shrubs for temperate Mediterranean climates. International Trials Conference. Wisley, UK.

Posters presented at professional meetings

Bell, N., J. Owen, H. Stoven and J. Altland. 2012. *Evaluation of Grevillea and related taxa for use in western Oregon landscapes.* American Society for Horticultural Science, Miami.
 Sullivan, D, N. Bell, J. Owen, J. Kowalski and J. McQueen. 2010. *Compost improves establishment of standard and drought-tolerant landscape plants in compacted soil.* 28th International Horticultural Congress, Lisbon.
 Sullivan, D, N. Bell, J. Owen, J. Kowalski and J. McQueen. 2010. *Municipal composts improve plant establishment in compacted soil.* 19th World Congress of Soil Science, Brisbane.

Bell, N. and J. Altland. 2009. *Cistus and Halimium species and cultivars grow and flower well in western Oregon*. American Society for Horticultural Science. St. Louis.

Sullivan, D, N. Bell and J. McQueen. 2009. *Soil amendment and plant selection for low-input urban landscapes*. Urban Ecology and Research Consortium. Portland. January 26.

3. Grant and Contract support

Since being hired in my current position, I have received a total of \$67,522 in grant support for my program, with \$46,321 since my last promotion. I have also received \$12,853 in E-campus/PACE fees since my last promotion for program purposes. In the table below I was lead author on listed grants.

Date	Title	Agency	Cooperators	Amount
2013	Evaluating <i>Arctostaphylos</i> for landscape use in the Pacific Northwest	Washington State Department of Agriculture	Jim Owen	\$4,091
2013	Evaluating <i>Grevillea</i> for landscape use in the Pacific Northwest	Washington State Department of Agriculture	James Altland, Jim Owen	\$4,262
2012	Evaluating <i>Arctostaphylos</i> for landscape use in the Pacific Northwest	Washington State Department of Agriculture	Jim Owen	\$3,948
2012	Evaluating <i>Grevillea</i> for landscape use in the Pacific Northwest	Washington State Department of Agriculture	James Altland, Jim Owen	\$3,948
2011	Evaluating <i>Arctostaphylos</i> for landscape use in the Pacific Northwest	Washington State Department of Agriculture	Jim Owen	\$3,984
2011	Evaluating <i>Grevillea</i> for landscape use in the Pacific Northwest	Washington State Department of Agriculture	James Altland, Jim Owen	\$3,948
2010	Evaluating <i>Arctostaphylos</i> for landscape use in the Pacific Northwest	Washington State Department of Agriculture	Jim Owen	\$6,050
2010	Evaluating <i>Grevillea</i> for landscape use in the Pacific Northwest	Washington State Department of Agriculture	James Altland, Jim Owen	\$3,905
2008	Evaluating <i>Arctostaphylos</i> for landscape use in the Pacific Northwest	Washington State Department of Agriculture	Jim Owen	\$7,985
2007	Evaluating <i>Grevillea</i> for landscape use in the Pacific Northwest	Washington State Department of Agriculture	James Altland, Jim Owen	\$4,200

Prior to last promotion:

Date	Title	Agency	Cooperators	Amount
2006	Oregon Waterwise Gardening (compacted soil study a subset of this grant)	OSU Extension Innovative Grant	Linda McMahan, AmyJo Detweiler, Carol Savonen, Barb Fick	\$2,500
2006	Assessing soil quality in post-construction residential and	Benton SWCD	Tom Cook, David Sandrock, John Hart	\$575

	commercial sites prior to landscaping			
2006	Assessing soil quality in post-construction residential and commercial sites prior to landscaping	OR Garden SPROUT	Tom Cook, David Sandrock, John Hart	\$1,725
2005	Development of the upper parking lots of the Oregon Garden as a water-efficient, low-input landscape	OR Garden Sustainable Plant Research and Outreach program	Cistus Design	\$14,900
2003	Evaluating <i>Cistus</i> for landscape use in the Pacific Northwest	Agricultural Research Foundation	James Altland	\$4,030
2003	Evaluation of <i>Hebe</i> species as ornamentals for the Pacific Northwest	Hardy Plant Society Of Oregon		\$650
2001	Evaluating <i>Ceanothus</i> for landscape use in the Pacific Northwest	Washington State Department of Agriculture	Sven Svenson	\$4,256
2001	Evaluating Chilean plants for landscape use in the Pacific Northwest	Washington State Department of Agriculture	Sven Svenson	\$3,550
2000	Plant Exploration to Chile, December 2000	OSEA Scholarship Fund		\$300
2000	Plant Exploration to Chile, December 2000	OSEA Fellowship Fund		\$300
2000	"Evaluation of commercial potential of <i>Hebe</i> species as ornamentals for the Pacific Northwest"	Agricultural Research Foundation	Sven Svenson	\$3,200
2000	"Evaluation of <i>Hebe</i> species and cultivars for the Pacific Northwest"	Hardy Plant Society Of Oregon	Sven Svenson	\$1,500

5. Other information appropriate to the discipline

i. Membership in professional societies

American Society for Horticultural Science
Oregon State University Extension Association
The Royal Horticultural Society (U.K.)
The Hebe Society (U.K.)
Pacific Horticulture Society
Bio-Integral Research Association
University of California, Santa Cruz Arboretum

ii. Professional development

TAC webinar, *Improving Powerpoint design*. September 4, 2013
International trials conference, Longwood Gardens, Kennett Square, PA (2013)
Urban Agriculture Summit. Marion-Polk Food Share, Salem, OR. (2013)
International trials conference, Wisley, U.K. (2011)

International Horticultural Congress (2010)
International Master Gardener Conference (2009)
Urban Ecology Research Consortium, Portland, OR (2005, 2009)
Master Gardener Mini-College, Corvallis, OR (2000, 2002, 2003-2006, 2008, 2010-13)
Farwest Show, Portland, OR (1994-2003, 2005-2007, 2009)
Ornamentals Research Day, NWREC, Aurora, OR (1995-2001, 2008)
Western Region IPPS, Wilsonville, OR (1999, 2007)
Western Conference on Diseases of Ornamentals and Turf, Portland, OR (1996-1997, 1999)
PNW Insect Management Conference, Portland, OR (1996-1997, 1999, 2000)
Oregon Association of Nurserymen Perennials Seminar, Clackamas (1997)
Northwest Center for Nursery Crops Research, Olympia, WA (1995)
Biocontrol Bonanza Workshop, NWREC (August/October 1995)
Rhododendron Growers Annual meeting, Clackamas, OR (1995)
American Society for Horticultural Science, Nashville, TN and Corvallis, OR (1993-1994),
Scottsdale, AZ (2007); St. Louis, MO (2009); Miami, FL (2012)
Farming for Profit and Stewardship, Portland, OR (1994)
Grape Day, Oregon State University, Corvallis, OR (1994)
Lower Mainland Horticultural Improvement Association, Abbotsford, BC, Canada (1988-1989,
1991-1992, 1994)
North American Strawberry Conference, Orlando, FL (1995)
Northwest Blueberry Growers, Portland, OR (1994)
North Willamette Horticultural Society, Portland, OR (1991-1995)
Ocean Spray Cranberry Growers, Bandon, OR (1994-1995)
Oregon Horticultural Society, Portland, OR (1991-1997, 1999)
PNW Small Fruits Research Center, Portland, OR (1992, 1994)
Western Small Fruits Pest Conference, Mt Hood, OR (1992-1994)

Workshops/Training Attended

Extension Spring training (2009, 2010, 2011, 2013)
Willamette Valley Green Industry Seminars (2009)
Oktoberpest, NWREC, Aurora, OR (2008)
Gardening Under Mediterranean Skies. San Francisco, CA, October, 2004
Tree Safety seminar. PNW-ISA. Portland, OR. November, 2002
Urban Forestry Research and Education Forum, Corvallis, OR, November, 2001
OSU Extension Annual Conference, Corvallis, OR, September, 2000, 2001, 2004, 2005
PNW Pesticide Educators Conference, Puyallup, WA, October, 2000
New Zealand Day, University of California, Santa Cruz, May 2000

D. SERVICE

1. University Service

Oregon Master Gardener mini-college Search for Excellence program. (2010, 2012, 2013) I was one of a panel of judges evaluating programs from several counties statewide for consideration for Search For Excellence.

Selection committee, Yamhill County Community Horticulturist, November-December 2013.

Selection committee, OS2 position, Polk County, June 2013.

Extension Service District committee, Polk County, April-July, 2009.

Selection Committee, Turf Specialist, Dept. of Horticulture, September, 2008

Selection committee co-chair, Metro Urban and Community Horticulturist, August 2006-February 2007.

Selection Committee, OS1 position, Marion County, September 2004.

External Reviewer, 4-H Program Content, Marion County 4-H program, 2001.

Selection Committee, Marion County Secretary, November, 2001.

Selection Committee, Yamhill County Community Horticulturist, August, 2000.

(Prior to hire in present position):

Numerous tours at NWREC including Multnomah Master Gardeners, June 1999, Clackamas Community College students, Sept., 1999.

Safety Committee, NWREC, December 1992-December 1995.

SAS Training Workshop for beginning users (manual developed), NWREC, 1995.

Selection Committee, Bioscience Tech II position, NWREC, 1994.

2. Service to the Profession

Prior to last promotion:

2004

Oregon Garden Horticulture Committee. I was asked by Norbert Kinen to serve on the Horticulture committee, which complements their existing design review committee. I attended meetings of the committee monthly September 2004 to February, 2005.

2003

Oregon Department of Agriculture Pesticide Applicator exam review. I assisted staff from the ODA with a revision of the vertebrate pest control test for pesticide applicator training in 2003.

3. Service to the Public (professionally related)

2011

The Marion County Master Gardener program. Sunrise Rotary Club, Salem, OR, June (invited 20).

The Marion County Master Gardener program. South Salem Rotary Club, Salem, OR, January (invited 25).

Prior to last promotion:

2004

The Marion County Master Gardener program. Capitol Area Kiwanis, Salem, OR, September (invited 25).

2002

The OSU Master Gardener program. Salem Rotary-downtown. Salem, OR. August (invited, 70)

4. Service to the Public (non-professionally related)

Dallas Rotary. I was a member of the club (2006-2009) and was Chair of the Program Committee and assist with their annual car show in Dallas. I also assisted with a re-design of the Rotary Park landscape in Dallas in 2008, providing the design and sourcing the plants. The landscape was planted in September, 2008.

Polk County 4-H. I was the Horticulture Leader for the program in Polk County (2007-2008).

E. HONORS AND AWARDS

(Prior to hire in present position):

Natural Science and Engineering Research Council of Canada Undergraduate Summer Research Award, \$2,500 -- 1990

British Columbia Government Scholarship -- 1987