

## Format for Personal Information on Departmental Web Page

Name: Doug Doohan

Area of Responsibility/Interests: Weed management in horticultural (fruit & vegetable) crops; agricultural risk analysis; fruit and vegetable food safety education.

### Education History:

PhD – North Carolina State University

MS – North Carolina State University

BS (Hon) – University of Guelph

### Position Held:

- 2002 – Present      Associate Professor  
Department of Horticulture and Crop Science  
The Ohio State University, Wooster, Ohio
- 1998 to 2002      Assistant Professor  
Department of Horticulture and Crop Science  
The Ohio State University, Wooster, Ohio
- 1990 to 1998      Adjunct Professor / Integrated Pest Management Team Leader  
Plant Science Department/ Plant Industry Branch  
Nova Scotia Agricultural College/ Department of Agriculture, Truro,  
Canada
- 1986 to 1989      Chief Inspector - Weed Control Act  
Nova Scotia Department of Agriculture, Truro, Canada

### Current/Recently Expired Activities

-Research Projects

1. Impact assessment of fruit and vegetable food safety educational programs. Educational programs will be based upon underway mental models research and tailored for appropriateness to segregated audience groups such as large conventional farmers, Amish and African American farmers. Funded (\$2.5 million ) by USDA CREES National Integrated Food Safety Program. Jointly held with Kentucky State University and Purdue University.
2. Development of herbicide treated mulchs for weed control and winter protection in Vinifera vineyards. Funded (\$29 K) by the Ohio Grape Improvement Committee.

3. Perception and knowledge of Ohio row-crop farmers regarding weed management. Farmers 'mental models' about weeds and their management influence decisions regarding implementation of integrated approaches, preference for herbicides, and confidence that herbicide companies will introduce new products to manage resistant biotypes. Funded (\$100 K) through an OARDC Research Enhancement Competitive Grants Program Interdisciplinary Team Grant.
4. Transition strategies that control weeds and build soil health. Field surveys conducted in 2001/ 2002 indicated that perennials are the major problem weeds faced by organic vegetable farmers. This project is focused upon developing well-validated methods to control these species while enhancing soil quality. A significant component of the project is directed to outreach to organic farmers community through an innovative 'learning community' approach. Funded (\$545 K) by USDA CREES Integrated Organic Program.
5. New herbicides for bramble production. Field and greenhouse experiments are underway to identify herbicides and use-patterns that will more effectively control perennial broadleaf weeds in brambles. Funded (\$25 K) by Ohio Berry Coop and OSUE South Centers Piketon.

#### -Extension Programs

1. Engaging Fruit and Vegetable Growers in Enhanced Food Safety Practices through Audience Tailored Risk Communication. Safety of the food supply is a major and growing concern of Americans. Farmers need access to the best information on safe production and marketing practices. Agriculture & Natural Resource Educators (ANRE) are the most trusted individuals in the state to deliver this program but require training and a resource team. This project, supported through a \$60 K grant from the OSU Excellence in Engagement program, has developed a team of 5 county-based ANRE to deliver fruit and vegetable food safety education to producers throughout the state. The goal is to directly reach and impact the food safety practices of 75% of the approximately 1200+ individuals involved in producing marketable produce.
2. OSU Agricultural Risk Analysis Program (<http://riskanalysis.osu.edu/projects.html>). Variable response by farmers to agricultural and food system risks may have dire consequences for society. The technology adoption model used by extension educators contributes to the variable adoption of preventive behaviors. Risk analysis as an alternate means to assess and communicate about agricultural and the food system risks. Risk analysis is a comprehensive, scientific approach to risk that involves scientists and the public. Risk analysis integrates social and natural sciences with audience considerations to overcome limitations inherent in traditional technology adoption approaches. This program is innovative in its integration of natural and social sciences and its adaptation of risk-analysis to the special circumstances of agricultural and food problems.
3. OSU Fruit Team. Ohio has a multi-million dollar fruit production and fresh fruit marketing industry that relies upon OSU faculty and staff for research and Extension

programs to support production and marketing issues. My role on the OSU Fruit Team is as State Specialist responsible for weed management. I conduct relevant research and prepare recommendations for weed control that are published in OSUE bulletins and newsletter articles. I also participate in grower short courses and workshops and provide lecture and hands-on training regarding the most critical aspects and developments for these important crops.

4. OSU Vegetable Crops Team. I provide weed management expertise and support to the network of Specialists and Educators working with Vegetable Producers including. Support is provided through regular contributions to the VEG NET newsletter, education and research programs conducted by the Ohio Produce Growers & Marketers Association, field days, and on-farm demonstrations.

5. Apple of Peru: An Invasive Weed of the Agro-Ecosystem. The objective of this program was to create awareness of the apple of Peru invasion of Ohio agroecosystems. Apple of Peru (*Nicandra physalodes*) has been detected on 21 farms near Fremont Ohio. This weed is a major threat to agroecosystems in Ohio and throughout the US. Apple of Peru is a serious weed problem in Brazil, Australia, Japan and East Africa.

#### -Courses Taught

#### 5-year Refereed Publications

1. Felix, J., **D. Doohan**, and D. Bruns. 2007. Differential vegetable crop responses to mesotrione soil residues a year after application. *Crop Protection*. (in press), (available online Nov. 28, 2006).
2. Figueroa, R., **D. Doohan**, J. Cardina and K. Harrision. 2007. Common groundsel (*Senecio vulgaris*) seed longevity and seedling emergence.
3. Wszelaki, A.L., **D. Doohan**, and A. Alexandrou. 2007. Weed control and crop quality in cabbage (*Brassica oleracea* (Capitata group)) and tomatoes (*Lycopersicon lycopersicon*) using a propane flamer. *Crop Protection*. 26: 134-144, (available online May 30, 2006).
4. Nahar, M. S., P. Grewal, S.A. Miller, D. H. Stinner, B. R. Stinner, M. D. Kleinhenz, A. L. Wszelaki, and **D. Doohan**. 2006. Differential effects of raw and composted manure on nematode community, and its indicative value for soil microbial, physical and chemical properties. *Applied Soil Ecology*. 34:140-151.
5. Figueroa, R.A and **D.J. Doohan**. 2006. Selectivity and efficacy of clopyralid on strawberry (*Fragaria X ananassa*). *Weed Technology*. 20:101-103.
6. Felix, J. and **D. Doohan**. 2005. Response of five vegetable crops to isoxaflutole soil residues. *Weed Technology*. 19: 391-396.
7. Polter, S.B., **D. Doohan**, and J.C. Scheerens. 2005. The effect of irrigation on terbacil tolerance in field-grown strawberry. *HortTechnology*. 15:560-564.
8. Figueroa, R., **D. Doohan**, and J. Cardina. 2005. Efficacy and selectivity of promising herbicides for common groundsel control in newly established strawberry. *HortTechnology*. 15: 261-266.

9. Felix, J., **D. J. Doohan**, S. C. Ditmarsen, M. E. Schultz, T. R. Wright, M. E. Schultz, T.R. Wright, B. R. Flood, T. L. Rabaey. 2005. Effect of flumetsulam plus clopyralid soil residues on potatoes (*Solanum tuberosum* L.), lima beans (*Phaseolus limensis* L.) and snap beans (*Phaseolus vulgaris* L.) grown in rotation. *Crop Protection*. 24: 790-797.
10. Shuster, W., C. P. Herms, M. Frey, **D.J. Doohan**, and J. Cardina. 2005. Comparison of survey methods for an invasive plant at the subwatershed level. *Biological Invasions* 7: 393-403.
11. Polter, S., **D. Doohan**, and J.C. Scheerens. 2004. Tolerance of greenhouse-grown strawberry to terbacil as influenced by cultivar, plant growth stage, application rate, application site and simulated post-application irrigation. *HortTechnology*. 14:223-229.
12. Clements, S., A. DiTommaso, S. Murphy, C. Mohler, J. Cardina, **D. Doohan**, N. Jordan, B. Booth and C. Swanton. 2004. Adaptability of plants invading North American cropland. *Agriculture, Ecosystems and Environment*. 107:379-398.
13. Jensen, K., **D. Doohan**, and E. Specght. 2004. Response of processing carrot to metribuzin on mineral soils in Nova Scotia. *Canadian Journal of Plant Science*. 84:669-67.

#### 5-year Extension Publications

##### Bulletins

1. Doohan, D.J. 2007. Weed management. Chapter 9. (and 25 additional pages describing recommended weed control practices in 27 crops). *Ohio Vegetable Production Guide*. Ed. R. Precheur. OSUE Bulletin 672 (revised annually).
2. Doohan, D.J. 2006. Weed management in strawberries. Chapter 7. *Midwest Strawberry Production Guide*. Ed. M. Ellis. OSUE Bulletin 926.
3. Masiunas, J., A. Martin, **D. J. Doohan**, S. Weller. 2006. Weed control in small fruit crops. Chapter 10. *Midwest Commercial Small Fruit and Grape Spray Guide*. OSUE Bulletin 506B2 (revised bi-annually).
4. Doohan, D. J. 2005. Weeds and weed control. Chapter 12. *Midwest Grape Production Guide*. Ed. I. Dami. OSUE Bulletin 919.
5. Doohan, D.J. 2005. Weed management. Chapter 6 (and descriptions of weed management for each crop included in accompanying chapters). *Midwest Small Fruit Pest Management Handbook*. Ed. M. Ellis. OSUE Bulletin 861.
6. Doohan, D.J. 2005. Weed management. Chapter 9 (and 25 additional pages describing weed control practices in each crop). *Ohio Vegetable Production Guide*. Ed. R. Precheur. OSUE Bulletin 672 (revised annually).
7. Ellis, M. A., C. Welty, D.D. Miller, and **D. J. Doohan**. 2005. *Ohio Commercial Tree Fruit Spray Guide*. OSUE Bulletin 506-A2 (revised annually).
8. Ellis, M. A., C. Welty, R. C. Funt, **D. J. Doohan**, and R. A. Williams. 2004. *Ohio Commercial Small Fruit and Grape Spray Guide*. OSUE 506B2-69 (revised bi-annually).
9. Ellis, M. A., C. Welty, D. D. Miller, and **D. J. Doohan**. 2004. *Ohio Commercial Tree*

- Fruit Spray Guide. OSUE Bulletin 506-A2 (revised annually).
10. Doohan, D.J. 2004. Weed management. Chapter 9 (and 24 additional pages describing weed control practices in each crop). Ohio Vegetable Production Guide. Ed. R. Precheur. OSUE Bulletin 672 (revised annually).
  11. Doohan, D.J. 2003. Weed management. Chapter 9 (and 24 additional pages describing weed control practices in each crop). OHIO Vegetable Production Guide. Ed. R. Precheur. OSUE Bulletin 672 (revised annually).
  12. Ellis, M. A., C. Welty, **D. J. Doohan** and D. D. Miller. 2003. Ohio Commercial Tree Fruit Spray Guide. OSUE Bulletin 506A2 (revised annually).

#### Technical Reports (items 9-34 are pre-OSU)

1. **Doohan, D.**, J. Felix, and T.A. Koch. 2007. Weed Management in Horticultural Crops. Research Results 2006. Horticulture and Crop Science Series No. 750. 447 PP.
2. **Doohan, D.**, J. Felix, and T.A. Koch. 2005. Weed Management in Horticultural Crops. Research Results 2005. Horticulture and Crop Science Series No. 745. 273 PP.
3. **Doohan, D.**, J. Felix, and T.A. Koch. 2004. Weed Management in Horticultural Crops. Research Results 2004. Horticulture and Crop Science Series No. 739. 165 PP.
4. **Doohan, D.**, J. Felix, and T.A. Koch. 2003. Weed Management in Vegetable Crops. Research Results 2003. Horticulture and Crop Science Series No. 735. 426 PP.

#### Fact Sheets

1. Ilic, S., J. LeJeune, and **D. Doohan**. 2007. Food safety in the berry patch. In Press.
2. Ilic, S., J. LeJeune and **D. Doohan**. 2007. Produce safety at the farm market: A guide for farmers and sellers. In Press.
3. Felix, J., **D. Doohan**, and M. Koenig. 2005. Apple of Peru – A new invasive weed in Ohio. OSUE Fact Sheet. HYG-1649-05.
4. Felix, J., **D. Doohan**, and M. Koenig. 2005. Apple of Peru – A new invasive weed in Ohio. OSUE Identification Card. L -1649-05.
5. Michel Jr, F. C., and **D. Doohan**. 2003. Clopyralid and other pesticides in composts. OSUE Fact Sheet. AEX-714.

#### Newsletter Articles

1. Ilic, S., J. LeJeune, and **D. Doohan**. 2007. Food safety in the berry patch. Ohio Fruit ICM News. 11(26). August 10, 2007.
2. Ilic, S., J. LeJeune and **D. Doohan**. 2007. Produce safety at the farm market: A guide for farmers and sellers. VegNet. 14(25). August 14, 2007.
3. Doohan, D. 2007. Annual grass control in sweet corn. VegNet. 14 (11). May 29, 2007.
4. Doohan, D. 2007. Chateau WDG herbicide. Ohio Fruit ICM News. 11(10). April 16, 2007.
5. Doohan, D. 2007. Controlling perennial weeds in spring before bloom. Ohio Fruit

- ICM News. 11(13). April 27, 2007.
6. Doohan, D. 2007. Vegetable crop herbicide update. VegNet. 14(8). May 4, 2007.
  7. **Doohan, D.**, J. Wargowski, S. Plimpton and J. LeJeune. 2007. Produce safety: What's happening in Ohio. VegNet. 14(14). June 12, 2007.
  8. Doohan, D. 2007. Onion weed control update. 2007. VegNet. 14(7). April 27, 2007.
  9. Doohan, D. 2006. Late season weed management for strawberry. Ohio Fruit ICM News. 10(31). November 17, 2006.
  10. Doohan, D. 2006. Fall weed control. Ohio Fruit ICM News. 10(29). October 16, 2006.
  11. Doohan, D. 2006. Herbicide label changes for asparagus. VegNet. 13(6). May 11, 2006.
  12. Doohan, D. 2006. Rotating vegetables after corn treated with Callisto. VegNet. 13(6). May 11, 2006.
  13. Doohan, D. 2005. Early fall weed control in berries. Ohio Fruit ICM News. 9(27). September 22, 2005.
  14. Doohan, D. 2005. Weed control at strawberry renovation. Ohio Fruit ICM News. 9(36). September 22, 2005.
  15. Doohan, D. 2005. Post-emergence weed control in sweet corn with Callisto. VegNet. 12 (9). June 8, 2005. Also published by Pennsylvania Vegetable Grower News. 28(6). June 2005. p. 20.
  16. Doohan, D. 2005. Good news for sweet corn growers. VegNet. 12(4). April 21, 2005. Also published by Pennsylvania Vegetable Growers News. 28(4). April 2005, p. 12.
  17. Doohan, D. 2004. Correction to Ohio vegetable production guide. VegNet. 11(8). May 11, 2004.
  18. Doohan, D. 2004. Section 18 for Outlook on dry bulb onions in muck soils. VegNet. 11(8). May 11, 2004.
  19. Doohan, D. 2004. New weed puts crops at risk. VegNet. 11(19). August 26, 2004.
  20. Doohan, D. 2004. Weed control in green onions. VegNet. 11(21). October 19, 2004.
  21. Doohan, D. 2004. Minor use pesticide issues. VegNet. 11(21). October 19, 2004.
  22. Doohan, D. 2003. New weed threatens Ohio vegetable producers. VegNet. 10(5). May 9, 2003.
  23. Doohan, D. 2003. Section 24C for Stinger on strawberries. Fruit ICM News. 7(20). May 29, 2003.
  24. Doohan, D. 2003. New herbicides for weed management at strawberry renovation. Ohio Fruit ICM News. 7(27). July 18, 2003.
  25. Doohan, D. 2003. Dual Magnum has finally received it's Section 3 label for tomatoes. VegNet. 10(4). April 23, 2003.

#### 5-year Proceedings/Conference Publications

1. Wilson, R., M. Tucker, N. Hooker, J. LeJeune, and **D. Doohan**. 2007. Perceptions and beliefs about weed management: mental models of Ohio grain and produce farmers. Agents of Analysis. Society for Risk Analysis. Abstract M5.109. p. 147.
2. Hooker, N. H., M. Tucker, J. LeJeune, and **D. Doohan**. 2006. Using risk analysis to

enhance adoption: Integrating the elements. Society for Risk Analysis Proceedings. Risk Analysis in a Dynamic World: Making a Difference.

3. **Doohan, D.**, and J. Felix. 2006. Tolerance of processing tomato varieties to halosulfuron. North Central Weed Science Society Proceedings. 61:127.
4. Tucker, M., **D. Doohan**, and J. LeJeune. 2006. Benefits of a multidisciplinary risk analysis approach. North Central Weed Science Society Proceedings. 61:11.
5. Kamboj, A., **D. Doohan**, and J. Felix. 2006. Differential effects of photoperiod on development of Solanaceous weed species. North Central Weed Science Society Proceedings. 61:84.
6. Jiang, L., T. Koch, I. Dami, and **D. Doohan**. 2006. Recalcitrant weeds in Ohio Vineyards. North Central Weed Science Society Proceedings. 61:85.
7. Felix, J. and **D. Doohan**. 2006. Integrated weed management approaches: Use of landscape fabric as mulch in organic vegetable production. North Central Weed Science Society Proceedings. 61:132.
8. Felix, J. and **D.J. Doohan**. 2006. Tomato (*Lycopersicon esculentum*) response to thifensulfuron applications. Weed Science Society of America Abstracts. 46:216.
9. **Doohan, D.**, N. Hooker, J. LeJeune, and M. Tucker. 2006. A risk analysis approach to educating farmers about invasive and recalcitrant weeds. Weed Science Society of America Abstracts. 46:230.
10. **Doohan, D.J.** and D. Francis. 2005. Tolerance of processing tomato varieties to halosulfuron. Weed Science Society of America Abstracts. 45:280.
11. Nava-Diaz, C., F. Abdelaim, M.D. Kleinhenz, **D. Doohan**, M. L. Ivey, and S. A. Miller. 2005. Effect of mulch, irrigation, spray program, and *Bacillus* spp. on fresh market tomato. Phytopathology 95:S73.
12. Amisi, K.J., **D.J. Doohan**, M.D. Kleinhenz, and S. Miller. 2004. No seed threshold and critical period weed management strategies in a transitional organic vegetable system. Weed Science Society of America Abstracts. 44:58.
13. Felix, J. and **D. Doohan**. 2004. Apple of Peru biology and control in corn, soybean, and vegetable crops. North Central Weed Science Society Proceedings. 59:61.
14. Felix, J. and **D.J. Doohan**. 2004. Apple of Peru - a new invasive weed and its distribution in Ohio. Weed Science Society of America Abstracts. 44:86.
15. Felix, J. and **D. Doohan**. 2004. Response of five solanaceous weeds to varying photoperiod. Weed Science Society of America Abstracts. 44:89.
16. Figueroa R., **D. Doohan**, and J. Cardina. 2004. Sulfentrazone use in newly planted and established strawberry for controlling common groundsel (*Senecio vulgaris* L.). Weed Science Society of America Abstracts. 44:8.
17. Figueroa R., **D. Doohan**, and J. Cardina. 2004. Maternal environment effects on seed dormancy of common groundsel (*Senecio vulgaris* L.). Weed Science Society of America Abstracts. 44:87.
18. Felix, J. and **D. Doohan**. 2004. Apple of Peru biology and control in corn, soybean and vegetable crops. North Central Weed Science Society Proceedings. 59:61.
19. Nava Diaz, C., M.D. Kleinhenz, **D. Doohan**, M.L. Ivey and S.A. Miller. 2004. *Bacillus* spp. with potential as biological control agents. Phytopathology 94:6.
20. Figueroa, R., **D. Doohan**, and J. Cardina. 2003. Germination response of six common groundsel (*Senecio vulgaris* L.) collections to temperature and burial. Weed Science Society of America Abstracts. 42: 294.

21. **Doohan, D.**, D. Lamore, and J. Felix. 2003. Sensitivity of several vegetable crops to isoxaflutole soil residues. *Weed Science Society of America Abstracts*. 43:209.
22. Polter, S., **D. Doohan**, and J. C. Scheerens. 2003. The effect of irrigation on strawberry tolerance to terbacil. *Weed Science Society of America Abstracts*. 43: 211.
23. **Doohan, D.**, J. Felix, J.A. Ivany, and G.O. Kegode, 2003. Using WeedCast computer model to determine potato cultivation timing. *Weed Science Society of America Abstracts*. 43:219.
24. Amisi, K., **D. Doohan**, M. D. Kleinhenz, and S. A. Miller. 2003. Effect of critical period and no seed threshold weed management strategies in a transitional vegetable organic system. *North Central Weed Science Society Proceedings*. 58: 163.
25. Felix, J., **D. Doohan**, J. Ivany, and G. Kegode. 2003. Weed control in potatoes using WeedCast to time cultivation. *North Eastern Weed Science Society Proceedings*. 57:86.
26. Kegode, G., J. Felix , J. Ivany, and **D. Doohan**. 2003. Cultivation using WeedCast for improved weed control in potato. *North Central Weed Science Society Proceedings*. 58:127.
27. Felix, J., and **D. Doohan**. 2003. Effect of photoperiod on growth of five Solanaceous weeds. *North Central Weed Science Society Proceedings*. 58:129.
28. Wzelaki, A. and **D. Doohan**. 2003. Flame control for weed management in cabbage and tomato. *North Central Weed Science Society Proceedings*. 58:168.
29. **Doohan, D.**, J. Felix, and J. Cardina. 2003. Apple of Peru, an emerging weed problem in vegetable and field crop rotations. *North Central Weed Science Society Proceedings*. 58:128.
30. **Doohan, D.**, J. Felix, and D. Bruns. 2003. Sensitivity of rotational crops to mesotrione soil residues. *North Central Weed Science Society Proceedings*. 58:196.
31. Ivany, J., **D. Doohan**, J. Felix. and G. Kegode. 2003. Weed control in potatoes using WeedCast to time cultivation. 2002 Canadian Weed Science Society Annual Meeting Proceedings. P. 41.
32. **Doohan, D.** J. Felix, D. Lamore. 2003. Sensitivity of several vegetable crops to isoxaflutole soil residues. *North Central Weed Science Society Proceedings*. 57: 90.

#### 5-year Grant Activity

**Table 10.** Summary of grant funding as Co-Principal Investigator.

1. **Doohan, D.**, H. Mathers, I. Dami. 2007. Winter protection and weed control with herbicide-treated-mulch. Funded (\$29K) by the Ohio Grape Industries Committee.
2. LeJeune, J., **D. Doohan**, M., Tucker, L. Rivers, M. Simon, S. Miller, S. Thorne. 2007. Integrating social and biological sciences to enhance adoption of vegetable safety behaviors from farm to table. Funded (\$2.5 million) by USDA National Integrated Food Safety Initiative.
3. **Doohan, D.**, N. Hooker, M. Tucker and J. LeJeune. 2006. Integrating social and biological sciences to enhance adoption of vegetable safety behaviors from farm to table. Funded (\$100 K) by OARDC RECGP Interdisciplinary Team Grant.

4. Cardina, J., **D. Doohan**, J. Felix. 2006. Transition strategies that control perennial weeds and build soil. Funded (\$555 K ) by USDA IOP Program.
5. Welty, C., **D. Doohan**, S. Miller, M. Bennett, M. Kleinhenz and R. Precheur. 2005. IPM Implementation in Home Vegetable Gardens. Funded (\$62 K) by the USDA NCR Integrated Pest Management Center.
6. Erbaugh, M., **D. Doohan**, J. Kovach, M. Kleinhenz, S. Miller, and J. Limdbo. 2005. Regional IPM program for East Africa: Kenya, Tanzania and Uganda. Funded (\$800K) US Agency for International Development.
7. J. Felix and **D. Doohan**. 2005. Integrated weed management approaches in organic tomato, bell peppers, edamame soybeans and peas. Funded (\$8 K) Warner Foundation.
8. M. Tucker, N. Hooker, **D. Doohan**, and J. LeJeune. 2005. Support for agricultural risk analysis program. Funded (\$19K) OSU Social Responsibility Initiative.
9. Welty, C. **D. Doohan**, S. Miller, M. Bennett, M. Kleinhenz and R. Precheur. 2005. Evaluation of biorational and natural products for vegetable crop management in commercial market gardens and home. Funded (\$8 K) OSUE IPM Program.
10. **Doohan, D.** 2004. Weed control systems for processing tomatoes. Funded (\$18 K) Mid America Food Processors Association.

**Doohan, D.**, J. Cardina and D. Ferree. 2003. Herbicide resistant weeds in Chilean vineyards and the risk to Ohio. Funded (\$25 K) OARDC RECGP International Collaboration Grant.

#### 5-year Presentation List

#### Invited International Presentations.

1. Doohan, D.J. 2007. Weed control and the welfare of people. Special Seminar. Sokoine University, Morogoro, TZ. January 26.
2. Doohan, D.J. 2006. Weed research at The Ohio State University. Discussion of research programs and opportunities with faculty and students at ESALQ – University of Sao Paulo. Piericicaba, BR. March 6.
3. Doohan, D.J. 2006. Managing common groundsel. 4<sup>th</sup> Annual Ontario Fruit & Vegetable Convention “Learning, Sharing and Growing”. St Catherines, Ontario, Canada. February 16.
4. Doohan, D. J. 2006. Weed management using Sinbar. Ontario Berry Growers Association Annual Meeting. St. Catherines, Ontario, Canada. February 17.
5. Doohan, D. 2005. IPM the road ahead. Strawberry IPM Workshop. Truro, Nova Scotia, Canada. March 29-30.
6. Doohan, D.J. 2005. Weed research at The Ohio State University. Invited Lecture at The Nova Scotia Agricultural College. Truro. March 29.

Invited National/ Regional Presentations (items 24-27 are pre-OSU).

1. Doohan, D. 2007. Weed control in brambles. National Brambles Association. Columbus, OH. January 15.
2. Hooker, N.H., M. Tucker, **D. Doohan** and J. LeJeune. 2006. Saving the world with risk analysis: the role of economics. Integrated Risk Studies: Gate to Plate. Fargo, ND. May 4-5.
3. Felix, J. and **D. Doohan**. 2006. Weed management in peppers. Wisconsin Fruit & Vegetable Growers Conference. Oconomowoc, WI. January 8-10.
4. Doohan, D. 2005. Weed management in berries – developing a plan. Nourse Farms Field Day 2005. South Deerfield, MA. August 20.
5. Doohan, D. 2004. Weed control methods for fruits and vegetables. United Agri Products Grower Meeting. New Wilmington, PA. January 14.
6. Doohan, D.J. 2004. Weed biology research in organic cropping systems. Horticulture Department Seminar. Virginia Tech University, Blacksburg. April 12.
7. Doohan, D.J. 2004. Apple of Peru – invasion of Midwest cropping systems. National Invasive Weed Awareness Week V, Washington, D.C. February 23.
8. Doohan, D.J. 2003. Ohio research with Sandea. Gowan Company, Indianapolis, IN. February 18.
9. Doohan, D.J. 2003. Growing cucurbits with mulch. Iowa Vegetable Grower's Association. February 2.
10. Doohan, D.J. 2003. Herbicides for cucurbit crops – Ohio experience. Iowa Vegetable Grower's Association. February 2.
11. Doohan, D.J. 2003. Weed management in strawberries. Wisconsin Fresh Fruit and Vegetable Conference. Oconomowoc, WI. January 5.
12. Doohan, D. 2003. Weed management in tomatoes and cucurbits. Wisconsin Fresh Fruit and Vegetable Conference. Oconomowoc, WI. January 5.
13. Doohan, D. 2003. OSU trials with Sandea – tomatoes and potatoes. Gowan Company Meeting. Harrisburg PA, November 5.
14. Doohan, D.J. 2002. Improving weed control in berries through understanding weed biology. Upper Midwest Regional Fruit and Vegetable Growers Conference. St. Cloud, MN. January 31.
15. Doohan, D.J. 2002. Weed management in berry crops. Upper Midwest Regional Fruit and Vegetable Growers Conference. St. Cloud, MN. January 31.

Invited State and County Presentations in Ohio.

1. **Doohan, D.** 2007. What's new in fruit and veggie weed control. Ohio State University Extension In Service Training. Columbus, OH. December 6, 2007.
2. Doohan, D. 2007. What's new in fruit and vegetable weed control. Pesticide Applicator Training Program. Ohio State University Extension. Video recording. Columbus, OH. October 30, 2007.
3. Doohan, D. 2007. Project planning using the Logic Model. Train-the-Trainer Workshop. OSU Excellence in Engagement Program. Engaging Fruit & Vegetable

- Growers in Enhanced Food Safety Practices through Tailored Risk Communication. Wooster, OH. October 29, 2007.
4. LeJeune, J. and **D. Doohan**. 2007. Grower beliefs about food safety. Train-the-Trainer Workshop. OSU Excellence in Engagement Program. Engaging Fruit & Vegetable Growers in Enhanced Food Safety Practices through Tailored Risk Communication. Wooster, OH. October 29, 2007.
  5. **Doohan, D.** and J. LeJeune. 2007. Deliverables, responsibilities, reporting and feedback. Train-the-Trainer Workshop. OSU Excellence in Engagement Program. Engaging Fruit & Vegetable Growers in Enhanced Food Safety Practices through Tailored Risk Communication. Wooster, OH. October 29, 2007.
  6. **Doohan, D.** 2007. What's new in weed management and food safety. 'Walking the Fields' Grower Tour. North Central Ohio. August 8, 2007.
  7. Doohan, D. 2007. Sustainable weed management in vineyards. OSUE Grape School. Ashtabula, OH. March 14, 2007.
  8. Doohan, D. 2007. Buenas noches-from your friendly competition in Chile. Lunch presentation at OSUE Grape School. Ashtabula, OH. March 14, 2007.
  9. **Doohan, D.**, and D. Miller. 2007. 2007 Update on weed control in apples. The Ohio Fruit and Vegetable Growers 2007 Congress. Columbus, OH. January 17, 2007.
  10. Doohan, D. 2007. Herbicide update 2007. The Ohio Fruit and Vegetable Growers 2007 Congress. Columbus, OH. January 15, 2007.
  11. Doohan, D. 2007. Strawberry weed control in the planting year. The Ohio Fruit and Vegetable Growers 2007 Congress. Columbus, OH. January 16, 2007.
  12. LeJeune, J., **D. Doohan**, and S. Miller. 2007. The *E. coli* connection. The Ohio Fruit and Vegetable Growers 2007 Congress. Columbus, OH. January 16, 2007.
  13. Doohan, D. 2007. 2006 muck crops summary. Muck Crops School. Willard, Ohio. January 4, 2007.
  14. Doohan, D. 2007. Buenas noches – from your friendly competition in Chile & Brazil. Banquet Presentation. Muck Crops School. Willard, Ohio. January 4, 2007.
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26. Doohan, D. J. 2006. Weed control in fruit and vegetable cropping systems. East African Delegation to OARDC. Wooster, Ohio. August 2, 2006.
27. Doohan, D.J. 2006. Weed management tips in processing vegetables. Walking the Fields Crop Tour. Sandusky & Seneca County, August 3, 2006.
28. Doohan, D.J. 2006. Bramble weed control research review. Ohio Berry Coop. Wooster, OH. November 8, 2006.
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31. Doohan, D. 2005. Understanding pesticide regulation. Muck Crops School. Willard, OH. January 8.
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35. **Doohan, D.**, M. Loux, and J. Stachler. 2005. Herbicide resistance and strategies for management. The Ohio Fruit and Vegetable Growers 2005 Congress. Toledo, OH. January 19-21.
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39. Doohan, D. 2005. The impact of weeds and weed control on human affairs. Leadership Wooster. Wooster Area Chamber of Commerce. Wooster, OH. November 3, 2005.
40. **Doohan, D.** and T. Koch. 2005. Roundup use for sucker control in Seyval Blanc grapes. Ohio Grape Industry Summer Field Day. Kingsville, OH. August 29.
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- Market & Café. Akron. July 15.
44. Doohan, D. J. 2004. Ohio vineyard weed management survey. Ohio Summer Vineyard Tour. Wooster, Ohio. August 19.
  45. Doohan, D.J. 2004. One-year of seeding, seven-years of weeding: Understanding common garden weeds as a prelude to keeping them out of your organic fruits and vegetables. Ohio Master Gardeners State Conference. Wooster, Ohio. October 22.
  46. Doohan, D.J. 2004. Weed management in new planted orchards. Ohio Fruit Grower's Tour. Wooster. June 25.
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  49. Doohan, D.J. 2004. Managing weeds in sweet corn – Callisto, varieties and other concerns. The Ohio Fruit and Vegetable Growers 2004 Congress. Toledo. January 20-22.
  50. Doohan, D.J. 2004. Sinbar on new apples. The Ohio Fruit and Vegetable Grower 2004 Congress. Toledo. January 20-22.
  51. Doohan, D.J. 2004. Guidelines for herbicides in cukes and what to expect. The Ohio Fruit and Vegetable Growers 2004 Congress. Toledo. January 20-22.
  52. Doohan, D.J. 2004. Potato weed control research and discussion. The Ohio Fruit and Vegetable Growers 2004 Congress. Toledo. January 20-22.
  53. Doohan, D.J. 2004. Apple of Peru an emerging weed problem in vegetable and field crop rotations. The Ohio Fruit and Vegetable Growers 2004 Congress. Toledo. January 20-22.
  54. Doohan, D.J. 2004. Weed control options in berries. The Ohio Fruit and Vegetable Growers 2004 Congress. Toledo. January 20-22.
  55. Felix, J. and **D. Doohan**. 2003. Common groundsel – A new weed problem in vineyards. OARDC Field Day. Kingsville. August 19.
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  57. Felix, J. and **D. Doohan**. 2003. Tests to generate data to support expansion of Command and Dual Magnum labels to include banana and Jalapeno peppers. OARDC Field Day. Fremont. July 18.
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  60. Doohan, D. 2003. Weed research - muck crops. Ohio Muck Crops School. January 10. Willard.
  61. Felix, J. and **D. Doohan**. 2003. Vegetable weed management update. Ohio State University Extension In Service Training. Columbus. January 8.
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  63. Felix, J. and **D. Doohan**. 2002. Herbicide update. Eastern Ohio Vegetable School for Growers and Consultants. OSUE Muskingum Co. Zanesville. March 1.

64. Felix, J. and **D.J. Doohan**. 2002. Successful weed control in tomatoes. Processing Crops Session. The Ohio Fruit and Vegetable Growers 2002 Congress. Toledo. February 6-8.
65. **Doohan, D.J.**, G. Vogley and D. Patterson. 2002. Roundup damage in young trees. Tree Fruit Session. The Ohio Fruit and Vegetable Growers 2002 Congress. Toledo. February 6-8.
66. Doohan, D.J. 2002. Update on potato weed control. Potato Session. The Ohio Fruit and Vegetable Growers 2002 Congress. Toledo. February 6-8.
67. Cardina, J., **D.J. Doohan**, and J. Felix. 2002. Weed management in research in sweet corn at OSU. Truck Crops Session. The Ohio Fruit and Vegetable Growers 2002 Congress. Toledo. February 6-8.

#### 5-year Creative Output

1. Only fill in those categories that apply to you or your appointment.
2. If you have a blank category, ie teaching, eliminate the category heading for your annual report.
3. Include the 5 most current years of information, if you have 5 years worth.
4. Project web pages, annual reports, and cv can be added as links to provide more detailed information