

REELEDER, Richard D. (Dr.) Curriculum Vitae

Contact Information:

Agriculture & Agri-Food Canada,
Southern Crop Protection and Food Research Centre,
1391 Sandford St.,
London, ON, Canada N5V 4T3

tel: +1(519)457-1470 x297

fax: +1(519)457-3997

reelederr@agr.gc.ca

Post-Secondary Education and Training

<u>Institution</u>	<u>Field of Specialization</u>	<u>Degree</u>	<u>Year</u>
Univ. of Wisconsin-Madison	Plant Pathology	Ph.D.	1979
Univ. of New Brunswick	Biology	B.Sc.	1974

Professional Experience:

<u>Date</u>	<u>Position or Function</u>	<u>Employer</u>	<u>Location</u>
1998 - Present	Research Scientist (SE-RES3)	Agriculture & Agri-Food Canada	London ON
2000	Research Fellow	Univ. of Wisconsin-Madison	Madison WI
1996 - 2000	Researcher-in-charge	Agriculture & Agri-Food Canada	Delhi, ON
1993 - 2000	Leader, New Crops Team	Agriculture & Agri-Food Canada	Delhi, ON
1989 - 1998	Research Scientist (SE-RES2)	Agriculture & Agri-Food Canada	Delhi, ON
1989 - 1992	Adjunct Professor	McGill University	Montreal, QC
1982 - 1989	Assistant Professor	McGill University	Montreal, QC
1979 - 1982	Research Associate	Univ. of Alberta	Edmonton, AB

Language: First language - English ; Second language - French (PSC profile C/B/B)

Research Knowledge / Experience:

Etiology and epidemiology of diseases of field crops, medicinal herbs, vegetables.

Ecology of root and foliar pathogens of plants.

Suppression of soilborne plant diseases using soil organisms and natural materials.

Detection and evaluation of agents for biological control of soilborne diseases and weeds.

Evaluation of field performance of fungicides and biorationals; data package preparation and submission.

Identification of disease-tolerant germplasm.

Extraction of DNA from soil and PCR-based amplification of DNA for pathogen detection and quantification.

Computer-based data entry, analysis, and report preparation (Corel / Microsoft; SigmaPlot, SAS).

Research program management.

Peer-reviewed Research Articles (1981-2007): career total of 63

Technical Research Publications / Factsheets : total of 18

Peer-reviewed research articles (career total of 63):

1. Reeleder, R.D. 2007. *Rhexocercosporidium panacis* sp nov., a new anamorphic species causing rusted root of ginseng (*Panax quinquefolius*). *Mycologia* 99: 91-98.
2. Kernaghan, G, R.D. Reeleder and S.M.T. Hoke. 2007. Quantification of *Cylindrocarpon destructans* in soil by real-time PCR. *Plant Pathology* 56: 508-516.
3. Roy RC, Ball Coelho BR, Bruin AJ, Reeleder R, and Capell B. 2007. Scheduling drip irrigation for ginseng (*Panax quinquefolius* L.) grown under straw and bark mulch. *Canadian Journal of Plant Science* 87: 373-381.
4. Reeleder, R. D., Hoke S. M. T., Zhang Yun. 2006. Rusted root of ginseng (*Panax quinquefolius*) is caused by a species of *Rhexocercosporidium*. *Phytopathology* 96:1243-1254.
5. Reeleder, R. D., J. J. Miller, B. R. Ball Coelho, and R. C. Roy. 2006. Impacts of tillage, cover crop, and nitrogen on populations of earthworms, microarthropods, and soil fungi in a cultivated fragile soil. *Applied Soil Ecology* 31: 243-257.
6. Fiebig, A. E., J. T. A. Proctor, D. P. Murr, and R. D. Reeleder. 2005. Flower abscission - induction in North American ginseng with ethephon. *HortScience* 40: 138-141
7. Reeleder, R. D. 2004. A new root disease of goldenseal (*Hydrastis canadensis*) caused by *Cylindrocladium colhounii*. *Canadian J Plant Pathology*. 26: 596-600
8. Reeleder, R. D. 2004. The use of yeasts for biological control of the plant pathogen *Sclerotinia sclerotiorum*. *BioControl* 49: 583-594.
9. Reeleder, R. D., B. Capell, R. C. Roy, R. Grohs, and B. Zilkey. 2004. Suppressive effect of bark mulch on weeds and fungal diseases in ginseng (*Panax quinquefolius* L.). *Allelopathy Journal* 13: 211-232.
10. Seifert, K. A., C. R. McMullen, D. Yee, R. D. Reeleder, and K. F. Dobinson. 2003. Molecular differentiation and detection of ginseng-adapted isolates of the root rot fungus *Cylindrocarpon destructans*. *Phytopathology* 93: 1533-1542.
11. Roy, R. C., R. Grohs, and R. D. Reeleder. 2003. A method for the classification by shape of dried roots of ginseng (*Panax quinquefolius* L.). *Canadian J Plant Science* 83: 955-958.
12. Reeleder, R. D., B. Capell, L. Tomlinson, and W. Hickey. 2003. A method for the extraction of fungal DNA from multiple large soil samples. *Canadian J Plant Pathology* 25: 182-191.
13. Reeleder, R. D. 2003. The ginseng root pathogens *Cylindrocarpon destructans* and *Phytophthora cactorum* are not pathogenic to the medicinal herbs *Hydrastis canadensis* and *Actaea racemosa*. *Canadian J Plant Pathology* 25: 218-221.
14. Reeleder, R. D. 2003. Fungal plant pathogens and soil biodiversity. *Canadian J Soil Science* 83: 331-336.
15. Reeleder, R. D., and B. Capell. 2002. Impacts of different pentachloronitrobenzene (quintozone) use patterns on severity of damping-off of ginseng (*Panax quinquefolius*) caused by *Rhizoctonia solani*. *Journal of Ginseng Research* 26: 10-16.

16. Reeleder, R. D., R. Roy, and B. Capell. 2002. Seed and root rots of ginseng (*Panax quinquefolius*) caused by *Cylindrocarpon destructans* and *Fusarium* spp. *Journal of Ginseng Research* 26: 151-158.
17. Starratt, A. N., J. G. Hendel, and R. D. Reeleder. 2001. Leaves of North American ginseng, *Panax quinquefolius* L.: a renewable source of certain ginsenosides. *Canadian Journal of Plant Science* 81, no. 1: 65-6
18. Reeleder, R. D., B. Capell, J. Hendel, and A. and Starratt. 2000. Effects of planting density on yield and ginsenoside levels in *Panax quinquefolius*. *Journal of Herbs, Spices and Medicinal Plants* 7, no. 1: 65-76.
19. Reeleder, R. D. 1999. *Septoria* leaf spot of *Stevia rebaudiana* in Canada and methods for screening for resistance. *Journal of Phytopathology* 147: 605-13.
20. Capell, B., R. D. Reeleder, R. Grohs, and B. Zilkey. 1999. Evaluation of herbicides for management of weeds in cultivation of *Panax quinquefolius*. *Journal of Ginseng Research* 23, no. 3: 135-47.
21. Ziezold, M., R. D. Reeleder, R. Hall, and J. T. A. Proctor. 1998. Effect of drenching soil with benomyl, propiconazole, and fluazinam on incidence of disappearing root rot of ginseng. *Journal of Ginseng Research* 22, no. 4: 237-43.
22. Ziezold, M., R. Hall, R. D. Reeleder, and J. T. A. Proctor. 1998. Toxicity of fungicides in vitro to *Cylindrocarpon destructans*. *Journal of Ginseng Research* 22, no. 4: 223-28.
23. Ziezold, M., R. Hall, R. D. Reeleder, and J. T. A. Proctor. 1998. Seedborne fungi and fungicide seed treatment of ginseng. *Journal of Ginseng Research* 22, no. 4: 229-36.
24. Gracia Garza, J. A., B. A. Bailey, T. C. Paulitz, R. D. Lumsden, R. D. Reeleder, and D. P. Roberts. 1997. Effect of sclerotial damage of *Sclerotinia sclerotiorum* on the mycoparasitic activity of *Trichoderma hamatum*. *Biocontrol Science and Technology* 7, no. 3: 401-13.
25. Bai, D. P., J. Brandle, and R. Reeleder. 1997. Genetic diversity in north American ginseng (*Panax quinquefolius* L.) grown in Ontario detected by RAPD analysis. *Genome* 40, no. 1: 111-15.
26. Wharf, I., H. Lamparski, and R. Reeleder. 1997. Studies in aryltin chemistry .7. Spectroscopic and fungicidal studies of some p-substituted tri-aryltin acetates, oxides and hydroxides . *Applied Organometallic Chemistry* 11: 969-76.
27. Gracia-Garza, J. A., R. D. Reeleder, and T. C. Paulitz. 1997. Degradation of sclerotia of *Sclerotinia sclerotiorum* by fungus gnats (*Bradysia coprophila*) and the biocontrol fungi *Trichoderma* spp. *Soil Biology and Biochemistry* 29, no. 2: 123-29.
28. Zhou, Ting, R. D. Reeleder, and S. A. Sparace. 1996. Influence of nutrients on growth of *Epicoccum nigrum*. *Canadian Journal of Microbiology* 42: 647-54.
29. Reeleder, R. D., S. Monette, D. VanHooren, and N. Sheidow. 1996. First report of target spot of tobacco caused by *Rhizoctonia solani* (Ag-3) in Canada. *Plant Disease* 80, no. 6: 712.
30. Reeleder, R. D., S Monette, R. C. Roy, and W. Court. 1996. Dieback of evening primrose: characteristics of *Septoria oenotherae*, its interactions with *Botrytis cinerea*, and use of fungicides to manage disease. *Canadian Journal of Plant Pathology* 18: 261-68.
31. Lovering, N. M., and R. D. Reeleder. 1996. First report of *Septoria steviae* on *Stevia*

- (*Stevia rebaudiana*) in North America. *Plant Disease* 80, no. 8: 959-59.
32. Bai, D. P., R. Reeleder, and J. E. Brandle. 1996. Production and characterization of tobacco addition lines carrying *Nicotiana debneyi* chromosomes with a gene for resistance to black root rot. *Crop Science* 36, no. 4: 852-57.
 33. Bai, D., R. Reeleder, and J. E. Brandle. 1995. Identification of two RAPD markers tightly linked with the *Nicotiana debneyi* gene for resistance to black root rot of tobacco. *Theoretical and Applied Genetics* 91: 1184-89.
 34. Reeleder, R. D., and R. A. Brammall. 1994. Pathogenicity of *Pythium* species, *Cylindrocarpon destructans*, and *Rhizoctonia solani* to ginseng seedlings in Ontario. *Canadian Journal of Plant Pathology* 16: 311-16.
 35. Reeleder R.D. 1994. Factors affecting infection of evening primrose (*Oenothera biennis*) by *Septoria oenotherae*. *Canadian Journal of Plant Pathology* 16: 13-20.
 36. ----- . 1993. Laboratory assays for evaluation of products for control of pole rot of tobacco caused by *Rhizopus arrhizus*. *Tobacco Science* 37: 34-38.
 37. Zhou Ting, Reeleder R.D., and Sparace S.A. 1991. Interactions between *Sclerotinia sclerotiorum* and *Epicoccum purpurascens*. *Canadian Journal of Botany* 69: 2503-10.
 38. Zhou T., and Reeleder R.D. 1991. Colonization of Bean Flowers by *Epicoccum purpurascens*. *Phytopathology* 81: 774-78.
 39. Gracia J.A., Reeleder R.D., and Belair G. 1991. Interactions between *Pythium tracheiphilum*, *Meloidogyne hapla* and *Pratylenchus penetrans* on lettuce. *Phytoprotection* 72: 105-14.
 40. Zhou T., and Reeleder R.D. 1990. Selection of strains of *Epicoccum purpurascens* for tolerance to fungicides and improved biocontrol of *Sclerotinia sclerotiorum*. *Canadian Journal of Microbiology* 36: 754-59.
 41. Ouellette E., Raghavan G.S.V., and Reeleder R.D. 1990. Volatile monitoring techniques for disease detection in stored potatoes. *Journal of Food Processing and Preservation* 14: 279-300.
 42. Ouellette E., Raghavan G.S.V., and Reeleder R.D. 1990. Volatile profiles for disease detection in stored carrots. *Canadian Agricultural Engineering* 32, no. 2: 255-61.
 43. Morin L., Watson A.K., and Reeleder R.D. 1990. Production of conidia by *Phomopsis convolvulus*. *Canadian Journal of Microbiology* 36: 86-91.
 44. Morin L., Watson A.K., and Reeleder R.D. 1990. Effect of dew, inoculum density, and spray additives on infection of field bindweed by *Phomopsis convolvulus*. *Canadian Journal of Plant Pathology* 12: 48-56.
 45. Zhou Ting, and Reeleder R.D. 1989. Application of *Epicoccum purpurascens* spores to control white mold of bean. *Plant Disease* 73: 639-42.
 46. Reeleder R.D., Raghavan G.S.V., Monette S., and Garipey Y. 1989. Use of modified atmospheres to control storage rot of carrot caused by *Sclerotinia sclerotiorum*. *International Journal of Refrigeration* 12: 159-63.
 47. Morin L., Watson A.K., and Reeleder R.D. 1989. Efficacy of *Phomopsis convolvulus* for control of field bindweed (*Convolvulus arvensis*). *Weed Science* 37: 830-835.

48. Anas O., Alli I., and Reeleder R.D. 1989. Inhibition of germination of sclerotia of *Sclerotinia sclerotiorum* by salivary gland secretions of *Bradysia coprophila*. *Soil Biology and Biochemistry* 21: 47-52.
49. Ormeno-Nunez J., Reeleder R.D., and Watson A.K. 1988. A new species of *Phomopsis* pathogenic to field bindweed (*Convolvulus arvensis*). *Canadian Journal of Botany* 66: 2228-33.
50. Ormeno-Nunez J., Reeleder R.D., and Watson A.K. 1988. A foliar disease of field bindweed (*Convolvulus arvensis*) caused by *Phomopsis convolvulus*. *Plant Disease* 72: 338-42.
51. Anas O., and Reeleder R.D. 1988. Feeding habits of larvae of *Bradysia coprophila* on fungal and plant tissue. *Phytoprotection* 69: 73-78.
52. Anas O., and Reeleder R.D. 1988. Consumption of sclerotia of *Sclerotinia sclerotiorum* by larvae of *Bradysia*: effects of some soil parameters on feeding activity and interactions between larvae and *Trichoderma viride*. *Soil Biology and Biochemistry* 20: 619-24.
53. Sparace S.A., Reeleder R.D., and Khanizadeh S. 1987. Activity of the pyrenocines. *Canadian Journal of Microbiology* 33: 327-30.
54. Reeleder, RD, and F Charbonneau. 1987. Incidence and severity of diseases caused by *Botrytis cinerea*, *Pythium tracheiphilum*, and *Sclerotinia* spp. on lettuce in Quebec, 1985-1986. *Canadian Plant Disease Survey* 67:45-46.
55. Mercier J., and Reeleder R.D. 1987. Interactions between *Sclerotinia sclerotiorum* and other fungi on the phylloplane of lettuce. *Canadian Journal of Botany* 65: 1633-37.
56. Mercier J., and Reeleder R.D. 1987. Effects of the pesticides maneb and carbaryl on the phylloplane microflora of lettuce. *Canadian Journal of Microbiology* 33: 212-16.
57. Anas O., and Reeleder R.D. 1987. Recovery of fungi and arthropods from sclerotia of *Sclerotinia sclerotiorum* in Quebec muck soils. *Phytopathology* 77: 327-31.
58. Reeleder R.D., and Charbonneau F. 1986. First report of *Sclerotinia minor* causing lettuce drop in Quebec. *Plant Disease* 70: 603.
59. Asiedu S.K., Raghavan G.S.V., Garipey Y., and Reeleder R.D. 1986. *Botrytis porri* on leek in Canada. *Plant Disease* 70: 259.
60. Reeleder R.D., and Hagedorn D.J. 1982. Colonization of Wisconsin Central Sands forest soils by *Pythium* species. *Canadian Journal of Plant Pathology* 4: 69-72.
61. Reeleder R.D. 1982. Fungi recovered from diseased roots and crowns of alfalfa in north central Alberta and the relationship between disease severity and soil nutrient levels. *Canadian Plant Disease Survey* 62: 21-27.
62. Reeleder R.D., and Hagedorn D.J. 1981. *Pythium* populations in Wisconsin bean fields. *Canadian Journal of Plant Pathology* 3: 90-93.
63. Reeleder R.D., and Hagedorn D.J. 1981. Inheritance of resistance to *Pythium myriotylum* hypocotyl rot in *Phaseolus vulgaris* L. *Plant Disease* 65: 427-29.

Chapters / Patents

1. Huang, H. C., S. D. Bardin, G. J. Boland, R. D. Reeleder, and S. M. Boyetchko. 2002. *Sclerotinia sclerotiorum* (Libert) de Bary and *Sclerotinia minor* Jagger, *Sclerotinia* diseases (Sclerotiniaceae). *Biological Control Programmes in Canada, 1981-2000*. eds P. G. Mason, and J. T. Huber, pages 493-501; pp. 583. Oxon UK: CABI Publishing, CAB International .
2. Reeleder, RD. 1994. Damping-off, root rot, seed decay IN Ginseng (Chapter 20). *Diseases and Pests of Vegetable Diseases in Canada*. eds. Howard, R. J.; Garland J. A.; Seaman W. Lloyd, Canadian Phytopathological Society and Entomological Society of Canada.
3. Reeleder R.D. 1992. Alterations of fungal communities in integrated management of plant disease. *The Fungal Community: Its Organization and Role in the Ecosystem*. 2nd ed., eds. Carroll GC, and Wicklow DT , 869-84. New York : Marcel Dekker, Inc.
4. Ormeno-Nunez, J., R. D. Reeleder, and A. K. Watson. 1990. Fungal herbicides. *Fungal herbicides: A biological herbicide for the control of field bindweed (Convolvulus arvensis)* Canadian patent filed Feb 3 1987; European patent 88200545 granted Nov 6 1990; patents filed in US; South Africa (8810207) 88200545. 88200545 ed. McGill University. licensed to ICI.

Technical Research Publications / Factsheets (total of 18)

1. Reeleder, R. D., and B. Capell. 2005. Efficacy of Quadris, BAS 500 (cabrio), and Senator 70 WP for the control of rhizoctonia damping-off in ginseng, 2002-2004. *2004 Pest Management Research Report - 2004 Growing Season. Expert Committee on Integrated Pest Management. May, 2005. Report No. 74 43: 225-26.*
2. Reeleder, R. D., and B. Capell. 2005. Effects of the fungicide seed treatments Dividend xl, Maxim xl, and Senator PSPT on emergence of ginseng; 2002-2004. *2004 Pest Management Research Report - 2004 Growing Season. Expert Committee on Integrated Pest Management. May, 2005. Report No. 75 43: 227-28.*
3. Reeleder, R. D., and B. Capell. 2004. Efficacy of Quadris and BAS 500 (Cabrio) for the control of rhizoctonia damping-off in ginseng, 2001-2003. *2003 Pest Management Research Report - 2003 Growing Season, Expert Committee on Integrated Pest Management, February 2004. Report No. 71. 42: 188-89.*
4. Reeleder, R. D., and B. Capell. 2003. Efficacy of propiconazole for management of rhizoctonia damping-off in ginseng, 1997-2001. *Pest Management Research Report 2002, Agriculture and Agri-Food Canada. 41: #117.*
5. Reeleder, R. D. and B. Capell. 2003. Efficacy of propiconazole for control of cylindrocarpou root rot in ginseng, 1997-2001. *Pest Management Research Report 2002, Agriculture and Agri-Food Canada. 41: #118.*
6. Reeleder, R. D., and B. Capell. 2002. Comparison of fungicides for management of Rhizoctonia damping-off in ginseng, 1999-2001. PMR Report #97. *Pest Management Research Report 2001.*

7. Reeleder, R. D., B. Capell, and L. Tomlinson. 2001. The effects of different use patterns of pentachloronitrobenzene on control of damping-off, 1995-1999. *Fungicide and Nematicide Tests* 56: M2.
8. -----, 2001. Comparison of fungicides for management of rhizoctonia damping-off in ginseng, 1998-2000. *Fungicide and Nematicide Tests* 56: M3.
9. Reeleder, R. D., and B. Capell. 2001. Efficacy of Epic, compost, and quitozene for control of damping-off in ginseng, 1996-1998. *Biological and Cultural Tests for Control of Plant Diseases* 16: V90.
10. -----, 2001. Efficacy of composted turkey manure and quitozene for control of damping-off in ginseng, 1996-1998. *Biological and Cultural Tests for Control of Plant Diseases* 16: V89.
11. -----, 2001. Effects of seed treatments on stand and root weight of ginseng, 1996-1998. *Fungicide and Nematicide Tests* 56.
12. Reeleder, R.D., and Fisher, P. 1995. *Rhizoctonia Disease of Ginseng*. Toronto ON Canada: Ontario Ministry of Agriculture, Food, and Rural Affairs. 2 pp. 6 Fig .
13. Reeleder, R.D., and P. Fisher. 1995. *Diseases of Ginseng*. Toronto ON Canada: Ontario Ministry of Agriculture, Food, and Rural Affairs. 4 pp. 36 Fig .
14. Zilkey, B. F., R. D. Reeleder, R. Beyaert, and R. A. A. Brammall. 1992. Alternative Enterprise Initiative project # 01684-7-0279/01-SE. Development of improved production technology for ginseng adaptation to southern Ontario soils (Final report).
15. Reeleder R.D., Brown D.A., Beyaert R., Capell B., Zilkey B., and Brammall R.A.A. 1992. Evaluation of fungicides for control of Alternaria blight in second-year ginseng, 1991. *Fungicide and Nematicide Tests* 47: 331.
16. Reeleder R.D., Brown D.A., Beyaert R., Zilkey B., and Brammall R. 1991. Evaluation of fungicides for control of Alternaria blight in first-year seedling ginseng, 1990. *Pest Management Research Report 1991*
17. Reeleder R.D., Brown D.A., Beyaert R., Zilkey B., and Brammall R. 1991. Evaluation of Fungicides for Control of Alternaria Blight in Second-Year Ginseng, 1990. *Pest Management Research Report 1991*.
18. McDonald, J., I. A. MacLatchy, N. W. Sheidow, M. C. Watson, and R. D. Reeleder. 1991. Tobacco veinal necrosis strain of Potato Virus Y (PVYN). 2 pages, 5 Fig. Toronto ON: Ontario Ministry of Agriculture, Food and Rural Affairs.

Membership in Scientific Societies:

American Society for Microbiology

International Society of Microbial Ecology

Canadian Phytopathological Society

Sigma Xi

Web site manager 1996-1999

Director, CPS Board 1995-1997

American Phytopathological Society