

## Publications in Refereed Journals

(Highly Qualified Personnel trained or in training are underlined)

### 2023

84. Tosi, M., Ogilvie, C.M., Spagnoletti, F., Fournier, S., **Martin, R.C.**, Dunfield, K.E. 2023. Cover crops modulate the response of arbuscular mycorrhizal fungi to water supply: a field study in corn. *Plants*. 12 (5) 1015 <https://www.mdpi.com/2223-7747/12/5/1015>

### 2022

83. Laamrani, A.; Voroney, P.R.; Saurette, D.D.; Berg, A.A.; Blackburn, L.; Gillespie, A.W.; **Martin, R.C.** 2022. An Extensive Field-Scale Dataset of Topsoil Organic Carbon Content Aimed to Assess Remote Sensed Datasets and Data-Derived Products from Modeling Approaches. *Remote Sens.* 2022, 14, 5519. <https://doi.org/10.3390/rs14215519>

82. Ogilvie, C.M., Van Arkel, L., Van Erd, L., Lauzon, J., Deen, B. and **Martin, R.C.** 2022. Corn yield and nitrogen recovery following rye (*Secale cereale* L.) in monoculture and polyculture service crops. *Can. J. Plant Sci.* 102 (4) <https://doi.org/10.1139/cjps-2022-0004>

### 2021

81. Parizeau, K., Von Massow, M. and Martin, R.C. 2021. Directly observing household food waste generation using composition audits in a Canadian municipality. *Waste Management* 135: 229-233. <https://doi.org/10.1016/j.wasman.2021.08.039>

### 2020

80. Laamrani, A., Voroney, P.R., Berg, A.A., Gillespie, A., March, M., Deen, W. and **Martin, R.C.** 2020. Temporal Change of Soil Carbon on a Long-Term Experimental Site with Variable Crop Rotations and Tillage Systems. *Agronomy* 10, 840; doi:10.3390/agronomy10060840
79. Ogilvie, C.M., Loucks, C. Beach, H. Johnson, P. and **Martin, R.C.**. 2020. Survey of interseeded red clover management and perceived challenges by Ontario wheat growers. *Can. J. Plant Sci.* [http://dx.doi.org/ DOI:10.1139/CJPS-2020-0039](http://dx.doi.org/DOI:10.1139/CJPS-2020-0039)
78. Shoaib Saleem, Jana Levison, Beth Parker, **Ralph Martin** and Elisha Persaud. 2020. Impacts of climate change and different crop rotation scenarios on groundwater nitrate concentrations in a sandy aquifer. *Sustainability* 12 (3):1153 <https://doi.org/10.3390/su12031153>

77. Scott G. Gardner, Jana Levison, Beth L. Parker, **Ralph C. Martin**. 2020. Groundwater nitrate in three distinct hydrogeologic and land use settings in southwestern Ontario, Canada. *Hydrogeology Journal*. <https://doi.org/10.1007/s10040-020-02156-4>

## 2019

76. Wyngaarden, S. Lightburn, K. and **Martin, R.C.** 2019. Optimizing livestock feed provision to improve the efficiency of the agri-food system. *Agroecology and Sustainable Food Systems*. [doi.org/10.1080/21683565.2019.1633455](https://doi.org/10.1080/21683565.2019.1633455).
75. Laamrani, A., Berg,A., Voroney,P., Feilhauer, H., Blackburn, L., March, M., Dao, .D., He, Y. and **Martin, R.C.** 2019. Ensemble identification of spectral bands related to soil organic carbon levels over an agricultural field in southern Ontario, Canada. *Remote Sensing*. In Press.
74. Stefanson, A.L., Tsao, R., Liu, R., Duizer, L., Bakovic, M. and **Martin, R.C.** 2019. Effect of variety, soil fertility status and agronomic treatments on carrot mineral and phytochemical composition and consumer liking of flavour traits. *Journal of the Science of Food and Agriculture*. <https://doi.org/10.1002/jsfa.9807>
73. Ogilvie, C.M., Deen, W. and **Martin, R.C.** 2019. Service crop management to maximize crop water supply and improve agroecosystem resilience: A review. *J Soil Water Conservation* 74:389-404 doi:10.2489/jswc.74.4.389
72. Rotz, S. Gravely, E., Mosby, I., Duncan,E., Finnis, E., Horgan, M., LeBlanc, J., **Martin, R.C.**, Tait Neufeld, H., Pant, L., Shalla, V., Fraser, E., 2019. Automated pastures and the digital divide: How agricultural technologies are shaping labour and rural communities. *Journal of Rural Studies*. <https://doi.org/10.1016/j.jrurstud.2019.01.023>

## 2018

71. Wartman, P., Van Acker and **Martin, R.C.** 2018. Temperate agroforestry: How forest garden systems combined with people-based ethics can transform food systems. *Sustainability* 10(7), 2246; doi: 10.3390/su10072246
70. Loucks, C. E.S., Deen, W., Gaudin, A.C.M, Earl, H.J., Bowley, S.R. and **Martin, R.C.** 2018. Genotypic differences in red clover (*Trifolium pratense* L.) response under severe water deficit. *Plant and Soil*. 425(1), 401-414  
<http://link.springer.com/article/10.1007/s11104-018-3594-9>
69. Beach, H.M., Laing, K.W., Van De Walle, M. and **Martin, R.C.** 2018. The Current State and Future Directions of Organic No-Till Farming with Cover Crops in Canada, with Case Study Support. *Sustainability* 10 (2), 373; doi:10.3390/su10020373

68. Manns, H. and **Martin, R.C.** 2018. Cropping system yield stability in response to plant diversity and soil organic carbon in temperate ecosystems. *Agroecology and Sustainable Food Systems* 42 (7): 724-750 <https://doi.org/10.1080/21683565.2017.1423529>

## 2017

67. Rotz, S., Fraser, E. D. G. and **Martin, R.C.** 2017. Situating Tenure, Capital and Finance in Farmland Relations: Implications for stewardship and agroecological health in Ontario. *Journal of Peasant Studies*. <http://dx.doi.org/10.1080/03066150.2017.1351953>
66. Yun Kong, David Llewellyn, Katherine Schiestel, Martha Gay Scroggins, David Lubitz, Mary Ruth McDonald, Rene Van Acker, **Ralph C. Martin**, and Youbin Zheng. 2017. High Tunnels can Promote Growth, Yield, and Fruit Quality of Organic Bitter Melons (*Momordica charantia* L.) in Regions with Cool and Short Growing Seasons. *Hort Science* 52(1):65–71. 2017. doi: 10.21273/HORTSCI11217-16

## 2016

65. Audette, Y., O'Halloran, I.P., Evans, L.J., **Martin, R.C** and Voroney, R.P. 2016. Kinetics of phosphorus forms applied as inorganic and organic amendments to a calcareous soil II: effects of plant growth on plant available and uptake phosphorus. *Geoderma* 279: 70–76. <doi:10.1016/j.geoderma.2016.06.002>
64. Wartman, P., Dunfield, K., Khosla, K., Loucks, C., R. Van Acker and **Martin, R.C.** 2016. The establishment of apple orchards as temperate forest garden systems and their impact on indigenous bacterial and fungal population abundance in Southern Ontario, Canada. *Renewable Agriculture and Food Systems*. <http://dx.doi.org/10.1017/S1742170516000120>
63. Manns, H., Parkin, G. and **Martin, R.C.** 2016. Evidence of a union between organic carbon and water content in soil. *Can. J. Soil Sci.* 96: 305–316 <dx.doi.org/10.1139/cjss-2015-0084>
62. Fraser, E., Legwegoh, A., Krishna, K.C., CoDyre, M., Dias, G, Hazen, S., Johnson, R., **Martin, R.C.**, Ohberg, L., Sethuratnam, S., Sneyd, L., Smithers, J., Van Acker, R., Vansteenkiste, J., Wittman, H., Yada, R. 2016. Biotechnology or organic? Extensive or intensive? Global or local? A critical review of potential pathways to resolve the global food crisis. *Trends in Food Science and Technology*. 48: 78–87. <doi:10.1016/j.tifs.2015.11.006>

## 2015

61. Wyngaarden, Sara, Gaudin, Amélie C.M., Deen, William, **Martin, Ralph C.** 2015. Expanding Red Clover (*Trifolium Pratense*) Usage in the Corn-Soy-Wheat Rotation. *Sustainability* 7: 15487-15509; doi:10.3390/su71115487

60. Gaudin, A.C.M., Tolhurst, T.N., Ker, A.P., Janovicek, K., Tortora, C., Martin, R.C. and Deen, W. 2015. Increasing Crop Diversity Mitigates Weather Variations and Improves Yield Stability. PLoS ONE 10(2): e0113261. doi: 10.1371/journal.pone.0113261 (top 10% most cited *PLOS ONE* papers published in 2015)

## 2014

59. Parizeau, K., Von Massow, M. and **Martin, R.C.** 2014. Household-level dynamics of food waste production and related beliefs, attitudes, and behaviours in a municipality in Southwestern Ontario. *Waste Management*. 35: 207-217
58. Mederos, A., Kelton, D., Peregrine, A.S., VanLeeuwen, J., Fernández, S., LeBoeuf, A., Menzies, P., **Martin, R.C.** 2014. Evaluation of the utility of subjective clinical parameters for estimating fecal egg counts and packed cell volume in Canadian sheep flocks. *Veterinary Parasitology*. 205: 568-574 <http://dx.doi.org/10.1016/j.vetpar.2014.08.030>
57. Gaudin, A.C.M., Janovicek, K., Martin, R.C. and Deen, W. 2014. Approaches to Optimizing Nitrogen Fertilization in a Winter Wheat - Red Clover (*Trifolium pratense* L.) Relay Cropping System. *Field Crops Research*. 155: 192–201. <http://dx.doi.org/10.1016/j.fcr.2013.09.005>

## 2013

56. Fredeen, A., Juurlink, S., Main, M., Astatkie, T. and Martin, R.C. 2013. Implications of dairy systems on enteric methane and postulated effects on total greenhouse gas emission. *Animal*. 7: 1875-1883.
55. Abdulla, M., **Martin, R. C.**, Gooch, M., and Jovel, E. 2013. The importance of quantifying food waste in Canada. *Journal of Agriculture, Food Systems, and Community Development*. 3(2): 137–151.
54. Gaudin, A.C.M., Westra, S., Loucks, C.E.S., Janovicek, K. Martin, R.C. and Deen, W. 2013. Improving Resilience of Northern Field Crop Systems Using Inter-Seeded Red Clover: A Review. *Agronomy (Open Access)* 3: 148-180; doi:10.3390/agronomy3010148

## 2012

53. Graves, M.E., McLean, N. Jones, G. and Martin, R.C. 2012. Pasture and sheep performance response to sod-seeding red clover (*Trifolium pratense* L.) or white clover (*Trifolium repens* L.) into naturalized pastures in eastern Canada. *Animal Feed Science and Technology*. 177: 7-14

## 2011

52. Halde, C., Hammermeister, A. M., Mclean, N. L., Webb, K. T., and **Martin, R. C.** 2011. Soil compaction under varying rest periods and levels of mechanical disturbance in a rotational grazing system. *Canadian Journal of Soil Science*. 91(6): 957-964.
51. Liu, K., Hammermeister, A. M., Warman, P. R., Drury, C. F. and **Martin, R. C.** 2011. Assessing soil nitrogen availability in contrasting cropping systems at the end of transition to organic production. *Canadian J. Soil Sci.* 91:(4) 493-501
50. Lynch, D.H., MacRae, R. and **Martin, R.C.** 2011. The Carbon and Global Warming Potential Impacts of Organic Farming: Does It Have a Significant Role in an Energy Constrained World? *Sustainability (Open Access)* 3: 322-362.

## 2010

49. Guthrie, A.D., Learmount, J., VanLeeuwen, J., Peregrine, A.S., Kelton, D., Menzies, P.I., Fernández, S., **Martin, R.C.**, Mederosa, A. Taylor, M.A.. 2010. Evaluation of a British computer model to simulate gastrointestinal nematodes in sheep on Canadian farms. *Veterinary Parasitology* 174: 92–105
48. Liu, K., Hammermeister, A.M., Entz, M.H., Astatkie, T., Warman, P.R. and **Martin, R.C.** 2010. Nitrogen availability in an organic potato crop following a 3-year transition under contrasting farming systems. *J. Sustainable Agric.* 34(8): 821-835.
47. MacRae, R.J., Lynch, D. and **Martin, R.C.** 2010. Improving Energy Efficiency and GHG Mitigation Potentials in Canadian Organic Farming Systems. *J. Sustainable Agric.* 34(5):549-580.
46. Mederosa, A., Fernández, S., VanLeeuwen, J., Peregrine, A.S., Kelton, D., Menzies, P., LeBoeuf, A., **Martin, R.C.** 2010. Prevalence and distribution of gastrointestinal nematodes on 32 organic and conventional commercial sheep farms in Ontario and Quebec, Canada (2006–2008). *Veterinary Parasitology*. 170: 244–252

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45. Sharifi, M., Lynch, D.H., Zebarth, B.J., Zheng, Z. and **Martin, R.C.** 2009. Evaluation of nitrogen supply rate measured by in situ placement of Plant Root Simulator probes as a predictor of nitrogen supply from soil and organic amendments in potato crop. *American Journal of Potato Research*. 86:356–366
44. MacRae, R., **Martin, R.C.**, Juhasz, M and Langer, J. 2009. Ten percent organic within 15 years: Policy and programme initiatives to advance organic food and farming in Ontario, Canada. *Renewable Agriculture and Food Systems*. 24(2): 120–136

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43. Lui, K., Hammermeister, A.H., Patriquin, D and **Martin, R.C.** 2008. Assessing organic potato cropping systems at the end of the first cycle of four-year rotations using principal component analysis. *Can. J. Soil Sci.* 88: 543–552
42. Lynch, D., Zheng, Z., Zebarth, B. and **Martin, R.C.** 2008. Organic amendment effects on tuber yield, plant N uptake and soil mineral N under organic potato production. *Renewable Agriculture and Food Systems* 23(3): 250–259
41. Beavers, R.L., Hammermeister, A.M., Frick, B., Astatkie, T. **Martin, R.C.** 2008. Spring wheat yield response to variable seeding rates in organic farming systems at different fertility regimes. *Can. J. Plant Sci.* **88**: 43–52
40. Roberts, C. J., Lynch, D. H., Voroney, R. P., **Martin, R. C.** and Juurlink, S. D. 2008. Nutrient budgets of Ontario organic dairy farms. *Can. J. Soil Sci.* 88:107 - 114.
39. Boiteau, G., Lynch, D.H. and **Martin, R.C.** 2008. Influence of Fertilization on the Colorado Potato Beetle, *Leptinotarsa decemlineata* (Say), in Organic Potato Production. *Environ. Entomology* 37 (2): 575 - 585

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38. MacRae, Rod J., Frick, Brenda and **Martin, Ralph C.** 2007. Economic and social impacts of organic production systems. *Can. J. Plant Sci.* **87**: 1037-1044.
37. Nams, V.O. and **Martin, R.C.** 2007. The effects of turnout date to pasture on cattle weight gain. *Can. J. Animal Sci.* **87**: 527–534.
36. **Martin, R.C.**, Lynch, D.H., Frick, B. and van Straaten, P. 2007. Phosphorous Status on Canadian Organic Farms. *Journal of the Science of Food and Agriculture.* 87: 2737-2740
35. Pridham, J.C., Entz, M.H., **Martin, R.C.** and Hucl, P.J. 2007. Weed, disease and grain yield effects of cultivar mixtures in organically managed spring wheat. *C.J. Plant Sci.* 87: 855-859.

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34. Wiens, M.J., Entz, M.H., **Martin, R.C.** and Hammermeister, A.M. 2006. Agronomic benefits of alfalfa mulch applied to organically managed spring wheat. *C.J. Plant Sci.* 86: 121-131.
33. Hammermeister, A.M., Astatkie, T., Jeliaskova, E.A., Warman, P.R. and **Martin, R.C.** 2006. Nutrient supply from organic amendments applied to unvegetated soil, lettuce and orchard grass. *C.J. Soil Sci.* 86: 21-33.
32. Sturz, A.V., Lynch, D.H., **Martin, R.C.** and Driscoll, A.M. 2006. Influence of compost tea, powdered kelp and Manzate<sup>R75</sup> on the community composition and antibiosis against *Phytophthora infestans* of bacteria in the potato phylloplane. *C.J. Plant Pathology* 28: 52-62.

31. Astatkie, T., Joseph, A.A. and **Martin, R.C.** 2006. A two-level unrepliated factorial design to determine the effect of organic and inorganic fertilizers on dry mater yield of permanent pasture. *Renewable Agriculture and Food Systems*. 21(2): 106-113

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30. Degenhardt, R., **Martin, R.C.** and Spaner, D. 2005. Organic farming in Central Alberta: Current trends, production constraints and research needs. *J. Sustainable Agriculture*. 27(2): 151-171.
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28. Lynch, D.H., Cohen, R.D.H., Fredeen, A. Patterson, G., and **Martin, R.C.** 2005. Management of Canadian prairie region grazed grasslands: Soil C sequestration, livestock productivity and profitability. *Can. J. Soil Sci.* 85: 183-192
27. **Martin, R.C.**, Astatkie, T., Cooper, J.M. and Fredeen, A.H. 2005. A comparison of methods used to determine biomass on naturalized swards. *Journal of Agronomy and Crop Sci.* 191: 152-160.

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26. Thorvaldsson, G. and **Martin, R.C.**, 2004. Growth response of seven perennial grass species to three temperature regimes applied at two growth stages. *Acta Agric. Scand., Sect. B Soil and Plant Sci.* 54: 14 - 22.

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25. Lynch, D.H., Jannasch, R.W., Fredeen, A.H. and **Martin, R.C.** 2003. Improving the nutrient status of a commercial dairy farm: An integrated approach. *American Journal of Alternative Agriculture* 18 (3): 137-145.

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24. Boyd, N.S., Gordon, R. and **Martin, R.C.** 2002. Relationship between leaf area index and ground cover in potato under different management conditions. *Potato Research* 45: 117-129.
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22. Papadopoulos, Y.A., **Martin, R.C.**, Fredeen, A.H., MacRae, K.B. and Price, M.A. 2001. Grazing and the addition of white clover improves the nutritional quality of orchardgrass cultivars. *Canadian J. Animal Sci.* 81:597-600.

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19. **Martin, R.C.** 2000. The Application of Deep Ecology in Cuba. *The Trumpeter*: 16, 1. Athabasca University. Available from: <http://trumpeter.athabascau.ca/index.php/trumpet/article/view/148/177> [Accessed 2011, Sept. 26].

18. Carruthers, K., Prithiviraj, B., Fe, Q., Cloutier, D., **Martin, R.C.**, and Smith, D.L. 2000. Intercropping of corn with soybean, lupin and forages: Silage yield and quality. *J. Agron. Crop Sci.*185:177-186.

17. Prithiviraj, B., Carruthers, K., Fe, Q., Cloutier, D., **Martin, R.C.**, Smith, D.L. 2000. Intercropping of corn with soybean and lupin for silage: Effect of seeding date on yield and quality. *J. Agron. Crop Sci.*185:129-136.

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15. Muto, P.J. and **Martin, R.C.** 1999. The growth of white clover seeded into a permanent pasture under both grazing and mowing regimes. *Grass and Forage Science* 55:59 - 68.

14. Jannasch, R. and **Martin, R.C.** 1999. The potential for capturing the biological yield of white lupin by intercropping with cereals. *Biological Agriculture and Horticulture* 17:113-130.

13. **Martin, R.C.**, Greyson, P.R. and Gordon, R. 1999. Competition between corn and a living mulch. *Canadian J. Plant Sci.*79:579 - 586.

12. Martin, R.A., Christie, B.R., Papadopoulos, Y.A. and **Martin, R.C.** 1999. AC Christie red clover. *Canadian J. Plant Sci.* 79:257-258.

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11. **Martin, R.C.**, Astatkie, T. and Cooper, J.M. 1998. The effect of soybean variety on corn-soybean intercrop biomass and protein yields. *Canadian J. Plant Sci.* 78:289-294

10. **Martin, R.C.**, Astatkie, T. and Cooper, J.M. 1998. The effect of bradyrhizobium strains on monocropped and intercropped soybean (*Glycine max* L. Merr.) biomass and protein. *J. Agron. Crop Sci.* 181: 1-6

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4. **Martin, R.C.**, Voldeng, H.D. and Smith, D.L. 1991. Nitrogen transfer from nodulating soybean to corn and to nonnodulating soybean in intercrops: Direct <sup>15</sup>N labelling methods. The New Phytologist. 117: 233-241.
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