

Publications in Refereed Journals

(Highly Qualified Personnel trained or in training are underlined)

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.
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. Gravelly, 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

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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

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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>

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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

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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

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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. Liu, 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^R75 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 unreplicated 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.
23. Fredeen, A.H, Astatkie, T., Jannasch, R.W., and **Martin, R.C.** 2002. Productivity of grazing Holstein cows in Atlantic Canada. *J. Dairy Science* 85: 1331 - 1338.

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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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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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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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