

2004 Publications:

1346. Anderson, James V., **Russ W. Gesch**, Wun S. Chao and David P. Horvath. 2004. A comprehensive review of dormancy status in leafy spurge crown buds in response to real world environmental and physiological cues in 3rd International Symposium on Plant Dormancy, From Molecular Level to the Whole Plant. Abstract. P. 5. [PDF: 28K](#)
1267. **Archer, D.** and **A. Olness**. 2004. Carbon value maps: Using economics to encourage adoption of carbon conserving practices. Soil Water Conserv. Soc. Abstract. [PDF: 12K](#)
1268. **Archer, D.** and **A. Olness**. 2004. Valuation of soil organic carbon as a drought mitigation tool. American Agricultural Economics Association Abstract. AAEA, Ames, IA. [PDF: 33K](#)
1269. Day, D., J.W. Lee and **D. Reicosky**. 2004. Development of sustainable fertilizer with positive local and global impacts. American Chemical Society. Paper No. 787166. [PDF: 24K](#)
1183. DeAlba, S., **M. Lindstrom**, T.E. Schumacher and D.D. Malo. 2004. Soil landscape evolution due to soil redistribution by tillage: A new conceptual model of soil catena evolution in agricultural landscapes. Catena 58:77-100. [PDF: 1875K](#)
1098. Dieterman, John J., **Jane Johnson** and Nancy Carpenter. 2004. Optimizing Trace Gas Storage Methods in Agroecosystem Studies. University of Minnesota-Morris Undergraduate Research Symposium. P. 6. [PDF: 1,114 K](#)
1213. Donald, W.W., **D. Archer**, W.G. Johnson and K. Nelson. 2004. Zone herbicide application controls annual weeds and reduces residual herbicide use in corn. Weed Sci. 52:821-833. [PDF: 1,934 K](#)
1119. Ekeleme, F., **F. Forcella**, **D.W. Archer** and I. Okezei Akobundu. 2004. Simulation of shoot emergence pattern of cogongrass (*Imperata cylindrica*) in the humid tropics. Weed Sci. 52:961-967. [PDF: 201 K](#)
1225. Eyherabide, J.J., **D. Peterson** and **F. Forcella**. 2004. Solaria provide preplant information on weed densities, distributions and management. North Central Weed Sci. Soc. Abstr. 59. [CD-ROM Computer File]. North Central Weed Sci. Soc., Champaign, IL. (Dec. 2004).

1255. Eynard, A., T.E. Schumacher, R.A. Kohl, D.D. Malo, J.A. Schumacher, **M.J. Lindstrom, S.K. Papiernik**, D.A. Lobb and A. Farenhorst. 2004. Spatial patterns of wettability in an eroded soil. American Society of Agronomy Abstract. [CD-ROM computer file] ASA, Madison, WI.
1185. Eynard, A, T.E. Schumacher, **M.J. Lindstrom** and D.D. Malo. 2004. Aggregate sizes and stability in cultivated South Dakota Prairie Ustolls and Usterts. Soil Sci. Soc. Am. J. 68:1360-1365. [PDF: 89 K](#)
1182. Eynard, A., T.E. Schumacher, **M.J. Lindstrom** and D.D. Malo. 2004. Porosity and pore-size distribution in cultivated ustolls and usterts. Soil Sci. Soc. Am. J. 68:1927-1934. [PDF: 137 K](#)
1184. Eynard, A., T.E. Schumacher, **M.J. Lindstrom**, D.D. Malo and R. Kohl. 2004. Wettability of soil aggregates from cultivated and uncultivated Ustolls and Usterts. Aust. J. Soil Res. 42:163-170.
1097. **Forcella, Frank** and **Gary B. Amundson**. 2004. Methods in Weed Ecology: Glue Retains Seeds in Shatter-Prone Seedheads. Weed Technology 18:183-185. [PDF: 52K](#)
1122. **Forcella, F.** and **R. Gesch**. 2004. Herbicides and desiccants for managing Cuphea, A new oilseed crop. AOCs Abstr. p. 70-71. [PDF: 68K](#)
1086. **Forcella, F.** and **R. Gesch**. 2004. Herbicides and desiccants for managing cuphea: A new oilseed crop. WSSA Abstr. p. 6. [PDF: 66K](#)
1245. **Gesch, R.W.**, S.C. Cermak, T.A. Isbell and **F. Forcella**. 2004. Cuphea seed and oil yield response to harvest date. American Society of Agronomy Abstract. [CD-ROM computer file] ASA, Madison, WI.
1246. **Gesch, R.W.**, **F. Forcella** and **A.E. Olness**. 2004. Cuphea grower's guide. p. 5-8. In: Cuphea Production Contract 2004. Technology Crops International. [PDF: 53 K](#)
1199. **Gesch, R.**, B. Sharratt and S. Cermak. 2004. Cuphea seed yield, but not seed oil content is reduced by drought. AAIC Abstr. p. 38. [PDF: 63 K](#)
1121. **Gesch, R.**, B. Sharratt, **F. Forcella** and **A. Olness**. 2004. Physiological response and seed yield of irrigated Cuphea. AOCs Abstr. p. 71. PDF:
1102. Guo, M., **S.K. Papiernik**, W. Zheng and S.R. Yates. 2004. Effects of environmental factors on 1,3-dichloropropene hydrolysis in water and soil. J. Environ. Qual. 33:612-618. [PDF: 169 K](#)

1134. Guo, M., W. Zheng, **S.K. Papiernik** and S.R. Yates. 2004. Distribution and leaching of methyl iodide in soil following emulated shank and drip application. *J. Environ. Qual.* 33:2149-2156. [PDF: 149 K](#)
1085. Harbur, M.M., E.E. Evans, L.M. Nickel, C.C. Sheaffer, D.L. Wyse, D.L. Allan, P. Nickel and **F. Forcella**. 2004. Organic weed management research in southwestern Minnesota. *WSSA Abstr.* p. 29-30. [PDF: 69 K](#)
1135. Ibekew, A.M., **S.K. Papiernik** and C-H Yang. 2004. Enrichment and molecular characterization of chloropicrin- and metam-sodium-degrading microbial communities. *Appl. Microbiol. Biotechnol.* 66:325-332. [PDF: 207 K](#)
1272. **Jaradat, A.A.** 2004. Comparative assessment of wild and semi-domesticated *Cuphea* spp. American Society of Agronomy Abstract. [CD-ROM computer file] ASA, Madison, WI. PDF:
1298. **Jaradat, A.A.** 2004. Genetic divergence in a meta-population of the Hourani durum wheat landrace. American Society of Agronomy Abstract. [CD-ROM computer file] ASA, Madison, WI.
1300. **Jaradat, A.A.** 2004. Quality traits of date palm fruits in a center of origin and center of diversity. *Food, Agriculture & Environment* 2(1):208-217. [\(1351 K\)](#)
1297. **Jaradat, A.A.** 2004. Saline agriculture in the Arabian Peninsula: Innovations in the management of marginal lands and saline resources. American Society of Agronomy Abstract. [CD-ROM computer file] ASA, Madison, WI.
1104. **Jaradat, A.A., D. Archer, J. Johnson, S. VanKempen, S. Wagner** and **J. Eklund**. 2004. Sampling strategies for crop yield assessment within and among crop rotations. *Proc. 7th Intl. Con. Precision Ag.* p. 223. PDF:
1299. **Jaradat, A.A., D.W. Archer, J. Johnson, S. VanKempen** and **J. Eklund**. 2004. Pattern and factor analyses of diverse plant and yield attributes' responses to alternative crop rotations and management practices. *Proc. 4th Intl. Crop Sci. Congress, Brisbane, Australia.* [CD-ROM computer file] 5 p.
1188. **Jaradat, A.A., D.W. Archer, J.M-F Johnson, S. VanKempen, S.W. Wagner** and **J.J. Eklund**. 2004. Pattern and factor analyses of diverse plant and yield attributes' response to alternative crop rotations and management practices. *Proc. 4th Intl. Crop Sci. Congress, Brisbane, Australia.* p. 152. PDF:
1080. **Jaradat, A.A.,** M. Shahid and A.Y. Al Maskri. 2004. Genetic diversity in the Batini barley

landrace from Oman: I. Spike and seed quantitative and qualitative traits. *Crop Science* 44: 304-315. ([168 K](#))

1100. **Jaradat, A.A.**, M. Shahid and A. Al-Maskri. 2004. Genetic diversity in the Batini barley landrace from Oman: II. Response to salinity stress. *Crop Science*. 44:997-1007. ([285 K](#))
1095. **Jaradat, A.A.** and A. Zaid. 2004. Quality traits of date palm fruits in a center of origin and center of diversity. *International Journal of Food, Agriculture, and the Environment*. Vol. 2(1): 208-217. ([1351 K](#))
1234. Jawson, M.D., S.R. Shafer, J.M. Baker, T.B. Parkin, J.L. Smith, R.F. Follett, **D.C. Reicosky** and A.J. Franzluebbbers. 2004. Greenhouse gas reductions through agricultural carbon enhancement network. *American Society of Agronomy Abstract*. [CD-ROM computer file] ASA, Madison, WI.
1187. **Johnson, J.** 2004. Soil microbial communities and early season corn growth. *Proc. Indiana Crop Adviser Conf.*, Indianapolis, IN. 8 p. [CD-ROM] PDF:
1247. **Johnson, J.M.F., D. Archer, S. Lachnicht, N.W. Barbour, J. Eklund and A. Wilts.** 2004. Comparison of soil biological indicators during three year transition from conventional to alternative and organic cropping systems. *American Society of Agronomy Abstract*. [CD-ROM computer file] ASA, Madison, WI. PDF:
1266. **Johnson, J.M.F., A.A. Jaradat, N.W. Barbour and S. VanKempen.** 2004. Inter and intra specific variation for lignin content in roots of annual *Medicago* spp. *American Society of Agronomy Abstract*. [CD-ROM computer file] ASA, Madison, WI. PDF:
1055. **Johnson, J.M.F., D. Reicosky,** B. Sharratt, **M. Lindstrom, W. Voorhees** and L. Carpenter-Boggs. 2004. Characterization of soil amended with the by-product of corn stover fermentation. *Agron. J.* 68:139-147. [PDF: 104 K](#)
1265. **Johnson, J.M-F,** W.W. Wilhelm, J.L. Hatfield, and **W. Voorhees.** 2004. T-values, corn stover removal and sustained productivity. *Soil Water Conserv. Soc. Abstract*.
1101. Kern, C.C., A.L. Friend, **J.M-F Johnson** and M.D. Coleman. 2004. Fine root dynamics in a developing *Populus deltoides* plantation. *Tree Physiology* 24: 651-660. [PDF: 2,340 K](#)
1198. **Lachnicht, S.L.,** P.F. Hendrix, R.L. Potter, D.C. Coleman and D.A. Crossley, Jr. 2004. Winter decomposition of transgenic cottons residue in conventional-till and no-till systems. *Applied Soil Ecol.* 27:135-142.

1251. **Lachnicht, S.L.**, H.H. Schomberg and P.G. Tillman. 2004. Soil microarthropod community change under conservation management practices. American Society of Agronomy Abstract. [CD-ROM computer file] ASA, Madison, WI.
1168. Li, Y., Q.W. Zhang, **D.C. Reicosky**, D. Coleman, L.Y. Bai, **M. Lindstrom** and L. Li. 2004. Suitability of using ^{137}Cs and ^{210}P for quantifying soil organic carbon redistribution affected by intensive tillage on the slope land. p. 175-184. *In*: Proc. International Conf. Land Resource Management and Ecological Restoration in the Loess Plateau, Yangling, China. 20-22, Sept. 2004. Northwest Sci-Tech University of Agriculture and Forestry, China. [PDF: 537 K](#)
1186. Lobb, D.A., **M.J. Lindstrom** and T.E. Schumacher. 2004. Soil erosion processes and their interactions: Implications for environmental indicators. p. 325-336. *In*: Rancabiglia R. (ed.) Agricultural Impacts on Soil Erosion and Soil Biodiversity: Developing Indicators for Policy Analysis. Proc. OECD Expert Meeting. Rome, Italy. March 2003, 654 pp. PDF: [417 K](#)
1174. Morris, D.R., R.A. Gilbert, **D.C. Reicosky** and **R.W. Gesch**. 2004. Oxidation potentials of soil organic matter in Histosols under different tillage methods. Soil Sci. Soc. Am. J. 68:817-826. [PDF: 284 K](#)
1248. **Olness, A.** 2004. Humic substances: Nature's most versatile materials. Soil Sci. 169(8):611-612.
1249. **Olness, A.** and **J.L. Rinke**. 2004. Particle size distribution in a Hamerly clay loam soil. American Society of Agronomy Abstract. [CD-ROM computer file] ASA, Madison, WI. PDF:
1096. **Olness, A.**, H. Weiser, B. Kunze, M. Lieser and **J. Rinke**. 2004. Differentiation of four northern Great Plains soils using resin extraction. Canadian Journal of Soil Science 84:31-42. [PDF: 689K](#)
1110. **Papiernik, S.K.**, R.S. Dungan, W. Zheng, M. Guo, S.M. Lesch and S.R. Yates. 2004. Effect of application variables on emissions and distribution of fumigants applied via subsurface drip irrigation. Environ. Sci. & Technol. 38(21):5489-5496. [PDF: 204K](#)
1112. **Papiernik, S. K.**, F. F. Ernst, R. S. Dungan, W. Zheng, M. Guo and S. R. Yates. 2004. Remediation of halogenated fumigant compounds in the root zone by subsurface application of ammonium thiosulfate. *In*: J. Gan, P. Zhu, S. D. Aust, and A. T. Lemley (eds.) Pesticide Decontamination and Detoxification. American Chemical Society Symposium Series 863. American Chemical Society, Washington, DC.

1256. **Papiernik, S.K., M.J. Lindstrom**, Schumacher, T.E., Lobb, D.A., Schumacher, J.A. and A. Farenhorst. 2004. Variation in soil properties and crop yield across an eroded prairie landscape. American Society of Agronomy Abstract. 4797 [CD-ROM computer file] ASA, Madison, WI. [PDF: 24K](#)
1111. **Papiernik, S.K.**, S.R. Yates, R.S. Dungan, S.M. Lesch, W. Zheng and M. Guo. 2004. Effect of surface tarp on emissions and distribution of drip-applied fumigants. Environ. Sci. Technol. 38(16):4254-4262. [PDF: 214 K](#)
1281. **Papiernik, S.K.**, S. Yates, R. Dungan, S. Lesch, W. Zheng and M. Guo. 2004. Management practices to reduce atmospheric emissions of soil fumigants. [Online].SWCS Annual Meeting., St. Paul, MN. 24-28 July 2004. [PDF: 17K](#)
1264. Pikul, Jr., J., **J. Johnson**, M. Ellsbury, S. Wright, and T-C Caesar. 2004. Aggregate stability and associated properties of soil under "new management" in eastern South Dakota. Soil Water Conserv. Soc. Abstract. [PDF: 16K](#)
1171. **Reicosky, D.C.** 2004. Beneficios ambientales globales del manejo del carbono del suelo: Preocupaci?n por la erosi?n causada por la labranza y por la soja. Proc. of the XII Congreso de AAPRESID, August 10-13, 2004, Rosario, Argentina, p. 41-48. [PDF: 175 K](#)
1169. **Reicosky, D.C.** 2004. Conservation agriculture, CO2 mitigation, and environmental benefits: Global policies and perspectives. p. 37-50. *In*: Proc. International Conf. Land Resource Management and Ecological Restoration in the Loess Plateau, Yangling, China. 20-22, Sept. 2004. Northwest Sci-Tech University of Agriculture and Forestry, China. [PDF: 433 K](#)
1173. **Reicosky, D.C.** 2004. Conservation agriculture, CO2 mitigation, and environmental benefits: Policies and perspectives. Proc. Manitoba-North Dakota Zero Till Conf. p. 49-57. PDF:
1170. **Reicosky, D.C.** 2004. Conservation agriculture: Environmental benefits of no till and soil carbon management. Proc. WANTFA New Frontiers in Agriculture Conf., Feb. 10-13, 2004, Katanning and Perth, Australia, p. 9-28. [PDF: 310K](#)
1175. **Reicosky, D.C.** 2004. Global environmental benefits of soil carbon management: Soybean concerns. In: F. Moscardi et al. (ed.) Proceedings of the VII World Soybean Research Conference, VI International Soybean Processing and Utilization Conference and III Congresso Brasileiro de Soja., February 29-March 5, 2004, Foz do Iguassu, Brazil, p. 99-110. PDF:
1235. **Reicosky, D.C.**, R.R. Allmaras, T.J. Sauer, R.T. Venterea, C.J. Dell and **J.M.F. Johnson**.

2004. Greenhouse contributions and mitigation potential in Centra USA agricultural regions of North America. American Society of Agronomy Abstract. [CD-ROM computer file] ASA, Madison, WI. PDF:

1172. **Reicosky, D., D. Archer** and **C. Wente**. 2004. Spatial variability in carbon dioxide loss after moldboard plowing within a soil map unit. Proc. 7th Intl. Con. Precision Ag. p. 79. PDF:
1167. **Reicosky, D.C.** and **A.R. Wilts**. 2004. Crop-residue management. p. 334-338. In D. Hillel (ed.) Encyclopedia of Soils in the Environment Vol. 1. Elsevier. Oxford, UK. [PDF: 112 K](#)
1236. Runion, G.B., S.A. Prior, D.W. Reeves, H.H. Rogers, **D.C. Reicosky**, A.D. Peacock and D.C. White. 2004. Microbial responses to wheel-traffic in conventional and no-tillage systems. Commun. Soil Sci. Plant Anal. 35(19&20):2891-2903. [PDF: 304 K](#)
1250. Schomberg, H., D. Endale, A. Calegari, M. Cabrera, R. Peixoto, M. Miyazawa, **S. Lachnicht** and R. Sharpe. 2004. Cover crop influences on N mineralization in a Piedmont soil. American Society of Agronomy Abstract. [CD-ROM computer file] ASA, Madison, WI.
1200. Sharratt, B.S. and **R.W. Gesch**. 2004. Water use and root length density of *Cuphea* spp. influenced by row spacing and sowing date. Agron. J. 96:1475-1480. PDF:
1120. Uscanga-Mortera, E., **F. Forcella**, S. Clay and J. Gunsolus. 2004. Emergence date affects growth and fecundity of redroot pigweed. Proc. 7th Intl. Con. Precision Ag. p. 206.
1099. **Vlaminck, Stephanie, Jane Johnson** and Nancy Carpenter. 2004. Development of a method for testing nitrous oxide flux. University of Minnesota-Morris Undergraduate Research Symposium. p. 27. [PDF: 1,116 K](#)
1079. Wilhelm, W.W., **J.M.F. Johnson**, J.L. Hatfield, **W.B. Voorhees** and D.R. Linden. 2004. Crop and soil productivity response to corn residue removal: A literature review. Agron. J. 96(1):1-17. [PDF: 250 K](#)
1103. **Wilts, A.R., D.C. Reicosky**, R.R. Allmaras, and C.E. Clapp. 2004. Long-term corn residue effects: Harvest alternatives, soil carbon turnover, and root-derived carbon. Soil Sci. Soc. Am. J. 68:1342-1351. [PDF: 147K](#)
1082. Zheng, W., **S.K. Papiernik**, M. Guo and S.R. Yates. 2004. Remediation of methyl iodide in aqueous solution and soils amended with thiourea. Environ. Sci. Technol. 38:1188-1194. [PDF: 116 K](#)

1133. Zheng, W., S.R. Yates, **S.K. Papiernik** and M. Guo. 2004. Effect of combined application of methyl isothiocyanate and chloropicrin on their transformation. J. Environ. Qual. 33:2157-2164. [PDF: 235 K](#)
1223. Zheng, Wei, Scott R. Yates, **Sharon K. Papiernik**, and Mingxin Guo. 2004. Transformation of Herbicide Propachlor by an Agrochemical Thiourea. Environ. Sci. Technol. 38:6855-6860. [PDF: 157 K](#)