

2005 Publications:

1244. Anderson, J.V., W.S. Chao, D.P. Horvath, Y. Jia and **R.W. Gesch**. 2005. Environmentally-induced shifts in sugar metabolism may affect dormancy status in underground adventitious buds of leafy spurge (*Euphorbia esula*). *Weed Sci. Soc. Am.* 45:121.
1287. Anderson, James V., **Russ W. Gesch**, Ying Jia, Wun S. Chao and David P. Horvath. 2005. Seasonal shifts in dormancy status, carbohydrate metabolism, and related gene expression in crown buds of leafy spurge. *Plant, Cell and Environment* 28:1567-1578. ([445 K](#))
1306. **Archer, D.W.** 2005. Drift prairie conservation ag: Economics five-year report. p. 82-88. In: B. Jacobson and S. Clancy (ed.) Final report on conservation agriculture. North Dakota Natural Resources Trust, Bismarck, ND. ([PDF: 108 K](#))
1284. **Archer, D.W.** 2005. Weeding out economic impacts of farm decisions. p. 63-75. In: J.L. Hatfield (ed.) The farmer's decision. SWCS, Ankeny, IA. ([PDF: 254K](#))
1240. **Archer, D., F. Forcella**, J. Wiersma and B. Durgan. 2005. WheatScout: Wild oat and foxtail herbicide decision model. p. 59-65. Proc. 27th Annual Zero Tillage and Winter Wheat Workshop, Brandon, Canada. 1-2 Feb., 2005. Manitoba-North Dakota Zero Tillage Farmers Association. ([PDF: 285K](#))
1276. **Archer, D.W.** and **A.A. Jaradat**. 2005. Crop productivity and economics during the transition to alternative cropping systems in the northern Corn Belt. American Society of Agronomy Abstract. [CD-ROM computer file] ASA, Madison, WI. ([PDF: 14K](#))
1296. Berti, M., B. Johnson, **F. Forcella** and **R. Gesch**. 2005. Cuphea seed yield and oil content response to harvest methods. American Society of Agronomy Abstract. [CD-ROM computer file] ASA, Madison, WI. ([PDF: 16K](#))
1262. Boote, K.J., L.H. Allen, P.V.V. Prasad, J.T. Baker, **R.W. Gesch**, A.M. Snyder, D. Pan, and J.M.G. Thomas. 2005. Elevated temperature and CO₂ impacts on pollination, reproductive growth, and yield of several globally important crops. *Journal of Agricultural Meteorology of Japan* 60:469-474. ([97 K](#))
1224. Clay, S.A., J. Kleinjan, D.E. Clay, **F. Forcella** and W. Batchelor. 2005. Growth and fecundity of several weed species in corn and soybean. *Agronomy Journal*, 97:294-302. ([234 K](#))
1304. Davis, A.S., J. Cardina, **F. Forcella**, G.A. Johnson, G. Kegode, J.L. Lindquist, E.C. Luschei, K.A. Renner, C.L. Sprague and M.M. Williams, II. 2005. Environmental factors affecting seed

persistence of annual weeds across the U.S. Corn Belt. Weed Sci. 53:860-868. ([155 K](#))

1339. Day, D., R.J. Evans, J.W. Lee and **D. Reicosky**. 2005. Economical CO₂, SO_x, and NO_x capture from fossil-fuel utilization with combined renewable hydrogen production and large-scale carbon sequestration. Energy. 30:2558-2579. ([PDF: 1,259 K](#))
1260. Dungan, R.S., **S. Papiernik** and S.R. Yates. 2005. Use of composted animal manures to reduce 1,3-dichloropropene emissions. J. Environ. Sci. Health 40:355-362. ([119 K](#))
1222. Ekeleme, Friday, **Frank Forcella**, **Dave W. Archer**, I Okezie Akobundu and David Chikoye. 2005. Seedling emergence model for tropic ageratum (*Ageratum conyzoides*). Weed Science, 53:55-61. ([178 K](#))
1500. Ellsbury, M.M., K.R. Banken, S.A. Clay, **F. Forcella**. 2005. Interactions among western corn rootworm (Coleoptera: Chrysomelidae), yellow foxtail, and corn. Environmental Entomology 34(3):627-634. ([318 K](#))
1278. Eynard, A., T.E. Schumacher, **M.J. Lindstrom** and D.D. Malo. 2005. Effects of agricultural management systems on soil organic carbon in aggregates of Ustolls and Usterts. Soil Tillage Res. 81:253-263. ([239 K](#))
1288. **Forcella, F.**, **G.B. Amundson**, **R.W. Gesch**, **S.K. Papiernik**, V.M. Davis and W.B. Phippen. 2005. Herbicides tolerated by cuphea (*Cuphea viscosissima* x *lanceolata*). Weed Technol. 19:861-865. ([29 K](#))
1239. **Forcella, F.** and **D. Archer**. 2005. Integrating continuous soil depth distributions of hydrothermal time, seeds and burial tolerances to improve seedling emergence models. Weed Sci. Soc. Am. 45:53. ([PDF: 26K](#))
1329. Forcella, F., D. Archer, E. Luschei, K. Spokas and A. Korth. 2005. Weed emergence: A revised Weedcast and its user versatility. North Central Weed Sci. Soc. 60:211. ([PDF: 15 K](#))
1292. **Forcella, F.**, **R.W. Gesch** and T.A. Isbell. 2005. Seed yield, oil, and fatty acids of cuphea in the northwestern Corn Belt. Crop Sci. 45:2195-2202. ([138 K](#))
1334. Franzluebbers, A.J., R.F. Follett, E.G. Gregorich, **J.M. Johnson**, M.A. Liebeg, D.A. Martens, S.J. Del Grosso, and M.D. Jawson. 2005. Greenhouse gas contributions and mitigation potential in agricultural regions of North America [abstract]. Third USDA Symposium on Greenhouse Gases & Carbon Sequestration in Agriculture and Forestry. 21-24 March 2005, Baltimore, Maryland.

Available: [Online](#)

1286. **Gesch, Russ W.**, and **David W. Archer**. 2005. Influence of Sowing Date on Emergence Characteristics of Maize Seed Coated with a Temperature-Activated Polymer. *Agronomy Journal* 97:1543-1550. ([122 K](#))
1242. **Gesch, R.W.**, S.C. Cermak, T.A. Isbell and **F. Forcella**. 2005. Seed yield and oil content of cuphea as affected by harvest date. *Agron. J.* 97:817-822. ([106 K](#))
1290. **Gesch, R.W.** and **F. Forcella**. 2005. Photosynthesis and growth response of domesticated cuphea to temperature. *American Society of Agronomy Abstract*. [CD-ROM computer file] ASA, Madison, WI. ([PDF: 16K](#))
1291. **Gesch, R.**, **F. Forcella**, **A. Olness**, **D. Archer** and A. Hebard. Agricultural management of Cuphea and commercial production in the United States. In: Pascual-Villalobos et al., ed. *Proc. 2005 Annual Mtg. AAIC. Int'l Conf. on Industrial Crops and Rural Development*, Sept. 17-21, 2005, Murcia, Spain. p. 749-757. ([207 K](#))
1258. Guo, M., S.R. Yates, **S.K. Papiernik** and W. Zheng. 2005. Incompatibility of metam sodium with halogenated fumigants. *Pest Manag. Sci.* 61:467-476. ([176 K](#))
1285. **Jaradat, A.A.**. 2005. Evolution of Cuphea spp. during domestication. XVII International Botanical Congress. July 17-23, 2005. Vienna, Austria. p. 496. ([PDF: 33K](#))
1270. **Jaradat, A.A.**. 2005. Saline agriculture in the Arabian Peninsula: Management of marginal lands and saline water resources. *J. Food, Agric. Environ.* 3(2):302-306. ([483 K](#))
1275. **Jaradat, A.A.**, **D.W. Archer**, **J. Johnson**, **S. VanKempen**, **S. Wagner** and **J. Eklund**. 2005. Sampling strategies for crop yield assessment within and among crop rotations. *Proc. 7th Intl. Conf. Precision Agriculture*, July 25-28, 2004, Minneapolis, MN. 16 pp. ([PDF: 155K](#))
1271. **Jaradat, A.A.**, M. Shahid and A.Y. Al-Maskri. 2005. Biomass production potential in the Batini barley landrace from Oman. *J. Food, Agric. Environ.* 3(2):249-253. ([1088 K](#))
1293. **Johnson, M-F**, **D.W. Archer**, **N.W. Barbour** and **J.J. Eklund**. 2005. Greenhouse gas emission from contrasting management scenarios in the northern Midwest. *American Society of Agronomy Abstract*. [CD-ROM computer file] ASA, Madison, WI. ([PDF: 19K](#))
1243. **Johnson, J.**, **D. Archer**, **N.W. Barbour** and **J. Eklund**. 2005. Preliminary observations of greenhouse gas emission from contrasting management scenarios in the northern Midwest.

1274. **Johnson, J.M-F, D.C. Reicosky**, R.R. Allmaras, T.J. Sauer, R.T. Venterea and C.J. Dell. 2005. Greenhouse gas contributions and mitigation potential of agriculture in the central USA. Soil Tillage Res. 83:73-94. ([317 K](#))
1294. **Johnson, J.M-F., D.C. Reicosky**, R.T. Venterea and D.E. Stott. 2005. Managing for mitigation of greenhouse gases and carbon sequestration in the Midwest. American Society of Agronomy Abstract. [CD-ROM computer file] ASA, Madison, WI. ([PDF: 17K](#))
1301. 1301. King, J.Y., D. Allan, J.S. Strock, J.C. Bell, **J. MF Johnson**, H. VanVleck, S. Abreu and K. Piotrowski. 2005. Investigating C and N dynamics using stable isotope tracers in corn. American Society of Agronomy Abstract. [CD-ROM computer file] ASA, Madison, WI. ([PDF: 50K](#))
1295. **Kludze, H.K.** and **D.W. Archer**.2005. An integrated approach to modeling multiple impacts of cropping systems management. American Society of Agronomy Abstract. [CD-ROM computer file] ASA, Madison, WI. ([PDF: 14K](#))
1302. **Lachnitch Weyers, S., D. Archer, J. Johnson, A. Wilts, N. Barbour** and **J. Eklund**.2005. Microbial dynamics in conventional and organic managed systems. American Society of Agronomy Abstract. [CD-ROM computer file] ASA, Madison, WI. ([PDF: 141 K](#))
1241. **Lachnitch, S.L., D.W. Archer, J. Johnson, A. Wilts, N. Barbour** and **J. Eklund**. 2005. Use of FAME to distinguish management effects in conventional and organic farming systems. Soil Ecology Society Abstract. SES, Argonne, IL. p. 63. ([PDF: 43K](#))
1254. Li, S., D.A. Lobb and **M.J. Lindstrom**. 2005. Tillage-induced soil and organic carbon redistribution in different landscapes. Geophysical Research Abstracts. [CD-ROM computer file] European Geosciences Union, Katlenburg-Lindau, Germany. ([PDF: 26K](#))
1230. Lobb, D., D. Burton, B. McConkey, **D. Reicosky, M. Lindstrom** and R. Wang. 2005. Soil erosion and its impacts on the production and emission of greenhouse gases in the North American Great Plains. Geophysical Research Abstracts 7:09827. ([PDF: 36K](#))
1227. Masin R., M.C. Zuin, **D.W. Archer, F. Forcella**, G. Zanin. 2005. WeedTurf: a predictive model to aid control of annual summer weeds in turf. Weed Science 53:193-201. ([372 K](#))
1237. **Olness, A.** and **D. Archer**. 2005. Effect of organic carbon on available water in soil. Soil Sci. 170(2):90-101. ([PDF: 764K](#))

1226. **Olness, A., R. Gesch, F. Forcella, D. Archer and J. Rinke.** 2005. Importance of vanadium and nutrient ionic ratios on the development of hydroponically grown cuphea. *Industrial Crops and Products*. 21:165-171. ([157 K](#))
1259. **Papiernik, S. K.,** C. M. Grieve, S. M. Lesch, and S. R. Yates. 2005. Effects of salinity, imazethapyr, and chlorimuron application on soybean growth and yield. *Commun. Soil Sci. Plant Anal.* 36:951-967.
1289. **Papiernik, S.K.,** M.J. Lindstrom, J.A. Schumacher, A. Farenhorst, K.D. Stephens, T.E. Schumacher and D.A. Lobb. 2005. Variation in soil properties and crop yield across an eroded prairie landscape. *J. Soil Water Conserv.* 60(6):388-395. ([PDF: 233K](#))
1324. **Peterson, D., K. Spokas, F. Forcella, D. Reicosky and C. Wente.**2005. Seedling emergence of row crops and weeds across five tillage systems. *North Central Weed Sci. Soc.* 60:74. ([PDF: 16K](#))
1263. Pikul, J.L., Jr., **J.M.F. Johnson,** S. Wright, T-C Caesar and M. Ellsbury. 2005. Soil organic matter and aggregate stability affected by tillage. p. 243-258. In E.A. Ghabbour and G. Davies (ed.) *Humic substances: Molecular details and applications in land and water conservation.* Taylor and Francis, Inc, New York. ([5005 K](#))
1314. Prior, S.A., D.C. Reicosky, G.B. Runion, R.L. Raper. 2005. Characterization of soil gas efflux patterns associated with tillage implements. pp 143- 147 in *The Science of Conservation Tillage: Continuing the Discoveries, The 27th Annual Southern Conservation Tillage Systems Conference,* Clemson University, Florence, SC, June 27-29, 2005. ([PDF: 931K](#))
1279. **Reicosky, D.C.**2005. Agronomic quantification of potential soil organic matter increase with direct seeding in Ukraine. p. 23-33. *Proc. 2nd Intl. Conf Sustainable and Effective Agriculture Using No-till Systems Approach,* Dnipropetrovsky, Ukraine, 17-20 Aug., 2005. ([PDF: 324K](#))
1228. **Reicosky, D.C.** 2005. Alternatives to mitigate the greenhouse effect: Emission control by carbon sequestration. p. 20-28. *Proc. Simposio sobre Plantio Directo e Meio Ambiente: Sequestro de Carbono E Qualidade da Agua,* Foz do Iguacu, Brazil, May 18-20, 2005. FEBRAPDP e Itaipu Binacional. ([PDF: 377K](#))
1280. **Reicosky, D.C.**2005. Conceptos para un programa de certificacion en siembra directa. In: *Proc. XIII AAPRESID Congress,* Aug. 9-12, 2005, Rosario City, Argentina, p. 301-314. ([PDF: 582K](#))
1313. Reicosky, D.C.2005. Conservation agriculture: Environmental benefits of reduced tillage and

soil carbon management in water limited areas of central Asia. Carbon Sequestration in Central Asia Workshop Abstracts, Columbus Ohio, November 1-4, 2005. p. 24. ([PDF: 17K](#))

1316. **Reicosky, D.C.** 2005. Conservation agriculture, Greenhouse effect, CO₂ mitigation, environmental benefits and Kyoto Protocol. p. 26-38. Proc. Vth International science practice conference. Conservation agriculture is the base for sustainable and safe farming. Samara, Russia: NFDCA, 2005.
1229. **Reicosky, D.C.** 2005. Conservation agriculture: Zero tillage impact on soil organic matter. p. 39-47. Proc. 27th Annual Zero Tillage and Winter Wheat Workshop, Brandon, Canada. 1-2 Feb., 2005. Manitoba-North Dakota Zero Tillage Farmers Association. ([PDF: 242K](#))
1307. **Reicosky, D.C.** 2005. Impact of the Kyoto Protocol ratification on global transactions of carbon. p. 189-198. Proc. Congreso Internacional sobre Agricultura de Conservación, Córdoba, Spain, 9-11 Nov., 2005. ([PDF: 395 K](#))
1231. **Reicosky, D.C.** 2005. Impact of the Kyoto Protocol ratification on global transactions of carbon. p. 118-125. Proc. Simposio sobre Plantio Directo e Meio Ambiente: Sequestro de Carbono E Qualidade da Agua, Foz do Iguacu, Brazil, May 18-20, 2005. FEBRAPDP e Itaipu Binacional. ([PDF: 297K](#))
1277. **Reicosky, D.C.** and **D.W. Archer.** Cuantificación agronomica del aumento de materia organica del suelo en siembra directa. In: Proc. XIII AAPRESID Congress, Aug. 9-12, 2005, Rosario City, Argentina. p. 51-60. ([PDF: 229K](#))
1232. **Reicosky, D., M. Lindstrom, T. Schumacher** and **D. Lobb.** 2005. Tillage-induced CO₂ loss across an eroded landscape in the North American Great Plains. Geophysical Research Abstracts 7:09922. ([PDF: 43K](#))
1233. **Reicosky, D.C., M.J. Lindstrom, T.E. Schumacher, D.E. Lobb** and **D.D. Malo.** 2005. Tillage-induced CO₂ loss across and eroded landscape. Soil Tillage Res. 81:183-194. ([517 K](#))
1303. Schomberg, H., P.G. Tillman, **S.L. Lachnicht Weyers**, P. Timper, D. Olson, U. Sainju, S. Phatak, W. Whitehead and B. Singh. 2005. Multidisciplinary approach to enhancing sustainability in cotton production in the Southeastern USA. American Society of Agronomy Abstract. [CD-ROM computer file] ASA, Madison, WI. ([PDF: 143 K](#))
1367. Schomberg, H.H., Tillman, G., Timper, P., **Lachnicht Weyers, S.L.**, Olson, D.M., Sainju, U.M., Phatak, S., Lamb, M.C., Whitehead, W., Utley, S. 2005. Enhancing sustainability in cotton production through reduced chemical inputs, cover crops, and conservation tillage. Final Project Report LS01-121 to the Sustainable Agriculture Research and Education (SARE)

program.

1305. **Spokas, K., F. Forcella, D. Peterson, D. Archer and D. Reicosky.** 2005. Seedchaser: Tillage model for vertical weed seed distribution. American Society of Agronomy Abstract. [CD-ROM computer file] ASA, Madison, WI. ([PDF: 142 K](#))
1323. Spokas, K., F. Forcella, D. Peterson, D. Archer and D. Reicosky. 2005. Seedchaser: Tillage model for vertical weed seed distribution. North Central Weed Sci. Soc. 60:142. ([PDF: 13K](#))
1238. Wiersma, J.J., **D.W. Archer, F. Forcella,** B.R. Durgan, **J. Eklund** and K. Martinson. 2005. Validation of WheatScout decision aid for integrated management of grass weeds in spring wheat. Weed Sci. Soc. Am. 45:80. ([PDF: 27K](#))
1257. Yates, S.R., **S.K. Papiernik** and W.F. Spencer. 2005. Predicting pesticide volatilization from bare soils. p. 101-110. In J.M. Clark and H. Ohkawa (ed.) Environmental fate and safety management of agrochemicals. ACS, Washington, D.C. ([PDF: 132K](#))
1282. Zhang, Y., **K. Spokas** and D. Wang. 2005. Degradation of methyl isothiocyanate and chloropicrin in forest nursery soils. J. Environ. Qual. 34:1566-1572. ([160 K](#))
1283. Zheng, Wei, **Sharon K. Papiernik,** Mingxin Guo, Robert S. Dungan, and Scott R. Yates. 2005. Construction of a Reactive Surface Barrier to Reduce Fumigant 1,3-Dichloropropene Emissions. Environmental Toxicology and Chemistry. 24(8):1867-1874. ([PDF:156K](#))