

TRISTRAM O. WEST

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POSITIONS

Pacific Northwest Nat. Lab., Joint Global Change Research Institute, College Park, Maryland.

Research Scientist, 2010 – present.

University of Tennessee, Biosystems Engineering and Soil Science Dept., Knoxville, Tennessee.

Adjunct Faculty, 2004 – present.

Oak Ridge National Laboratory, Environmental Sciences Division, Oak Ridge, Tennessee.

Research Scientist, 2007 – 2010.

Associate Research Scientist, 2003 – 2006.

Postdoctoral Research Associate, 1999 – 2002.

The Ohio State University, School of Natural Resources, Columbus, Ohio.

Graduate Research Fellow, 1996 – 1999.

Graduate Research Associate, 1995 – 1996.

Graduate Teaching Associate, 1994 – 1995.

EDUCATION

Ph.D., Agronomy, Ohio State University, 1999.

Concentrations: Landscape Ecology and Ecological Modeling

M.S., Natural Resources, Ohio State University, 1996.

Concentrations: Ecosystem Rehabilitation and Ecological Modeling

B.S., Agriculture, University of Kentucky, 1994.

Curriculum: Natural Resources Conservation and Management

PRIMARY RESEARCH INTERESTS

- Effects of land management on biogeochemical cycling in terrestrial ecosystems
- Quantitative modeling of the impacts of carbon sequestration strategies and other climate change mitigation options on net greenhouse gas emissions to the atmosphere
- Use of remote sensing and geographic information systems to quantify soil attributes and biogeochemical cycling
- Integrated assessment of climate change impacts and mitigation
- Environmental effects of policies intended to reduce greenhouse gas emissions

PROFESSIONAL SERVICE AND ACTIVITIES

- Elected member to the North American Carbon Program, Mid-Continent Intensive Campaign Task Force, 2005-present.
- Associate Editor, Soil Science Society of America Journal, 2007 - present.
- USDA Croplands/Grazing Lands Working Group for quantifying greenhouse gas emissions from forest and agricultural sectors, 2011- present.
- NASA Terrestrial Ecology Working Group, 2010 - present.
- Team member of the Bio-Based Energy Analysis Group, University of Tennessee
- Reviewed manuscripts for over 30 professional research journals, several federal agency reports on greenhouse gas mitigation and carbon sequestration, and IPCC assessments and special reports, 2000-present.

PROFESSIONAL AFFILIATIONS

- American Geophysical Union
- American Society of Agronomy
- American Society for Photogrammetry and Remote Sensing
- Ecological Society of America
- Soil Science Society of America

STUDENT SUPERVISION AND INSTRUCTION

- 2003: Brooke Ilene Chichakly (undergraduate), Allen McBride (undergraduate), Xiaojuan Yang (Ph.D. candidate)
- 2005: Adam Roddy (undergraduate; co-supervised with Stan Wullschleger), Maithilee Kunda (undergraduate; co-supervised with Gregg Marland)
- 2006: Maithilee Kunda (post-bachelor), Aarthy Sabesan (post-masters; co-supervised with Budhendra Bhaduri)
- 2006: Instructor for fall semester course at University of Tennessee: ESS 593, Special Problems in Plant and Soil Sciences
- 2005-2008: Chad Hellwinkel (Ph.D. candidate, co-advised with Dr. Daniel De La Torre Ugarte at the University of Tennessee)
- 2008-2010: Varaprasad Bandaru (post-doctoral student at Oak Ridge National Laboratory)

COMPETITIVE, PEER-REVIEWED GRANTS AWARDED & MANAGED

- Modeling and Mapping Land Management and Net Carbon Emissions: Decision Support for Biofuels and Carbon Management on US Agricultural Lands. Funded by NASA, 2008-2011.
- Development of a Framework and Modeling Tool for Spatially-Explicit Full Carbon and Greenhouse Gas Accounting at the Regional to National Scale: Estimating Net C-equivalent Flux from U.S. Agriculture. Funded by NASA, 2005-2008.
- Lateral and Temporal Displacement of Terrestrial Carbon by Humans. Funded by NOAA, 2005-2007.

AWARDS

- Oak Ridge National Laboratory, Environmental Sciences Division, Stanley I. Auerbach Award for Excellence in Environmental Science, 2009
- Soil Science Society of America, Best Division S-6 Paper, 1st Place, 2008
- Soil Science Society of America, Best Division S-6 Paper, Honorable Mention, 2003
- AAAS Environmental Fellowship, Congressional Science and Engineering Fellowship, 2002
- US Department of Defense Fellowship, 1996-1999
- Ohio State, Mapping and GIS Laboratory Fellowship, 1996-1999

RESEARCH HIGHLIGHTS AND PRESS RELEASES

- Carbon hitches a ride from field to market: Agriculture's mobile nature makes predicting regional greenhouse gas impacts more complex, August 2011: <http://www.sciencedaily.com/releases/2011/08/110803151228.htm>
- Use of satellite remote sensing and modeling to estimate soil carbon change at regional and continental extents, March 2011: <http://www.pnl.gov/science/highlights/highlight.asp?id=920>
- Spatially-Explicit, Agricultural Carbon Accounting Tool, June 2010: http://www.ornl.gov/info/press_releases/get_press_release.cfm?ReleaseNumber=mr20100602-00
- Highlighted as Emerging Research Front from Thomson-Reuters ScienceWatch, August 2009: <http://sciencewatch.com/dr/erf/2009/09augerf/09augerfWest/>
- Fossil-based CO₂ Emissions from Cropland Production are Linked to Policy, Weather, and Crop Prices, May 2009: CSA News 54(05): 11-12.

- New Tool Gets Handle on Cropland CO₂ Emissions, February 2009:
http://www.ornl.gov/info/press_releases/get_press_release.cfm?ReleaseNumber=mr20090209-00

PUBLICATIONS

- West, T.O.**, V. Bandaru, C.C. Brandt, A.E. Schuh, and S.M. Ogle. 2011. Regional uptake and release of crop carbon in the United States. *Biogeosciences* 8: 2037-2046.
- Brown, D.J., E.R. Hunt, R.C. Izaurralde, K.H. Paustian, C.W. Rice, B.L. Schumaker, and **T.O. West**. 2010. Soil organic carbon change monitored over large areas. *EOS, Transactions, American Geophysical Union* 91: 441-442.
- Larson, J.A., B.C. English, D.G. De La Torre Ugarte, R.J. Menard, C.M. Hellwinckel, and **T.O. West**. 2010. Economic and environmental impacts of the corn grain ethanol industry on the United States agricultural sector. *Journal of Soil and Water Conservation* 65(5): 264-279.
- West, T.O.** 2010. Integrative approaches for estimating current and future feedstock availability. *GCB Bioenergy* 2: 215-216, DOI 10.1111/j.1757-1707.2010.01057.x.
- Zhang, X., R.C. Izaurralde, D. Manowitz, **T.O. West**, W.M. Post, A.M. Thomson, V. Bandaru, J. Nichols, J.R. Williams. 2010. An integrative modeling framework to evaluate the productivity and sustainability of biofuel crop production systems. *GCB Bioenergy* 2:258-277, DOI 10.1111/j.1757-1707.2010.01046.x.
- Hellwinckel, C.M., **T.O. West**, D.G. De La Torre Ugarte, R.D. Perlack. 2010. Evaluating possible cap and trade legislation on cellulosic feedstock availability. *GCB Bioenergy* 2: 278-287, DOI 10.1111/j.1757-1707.2010.01052.x.
- West, T.O.**, C.C. Brandt, L.M. Baskaran, C.M. Hellwinckel, R. Mueller, C.J. Bernacchi, V. Bandaru, B. Yang, B.S. Wilson, G. Marland, R.G. Nelson, D.G. De La Torre Ugarte, and W.M. Post. 2010. Cropland carbon fluxes in the United States: Increasing geospatial resolution of inventory-based carbon accounting. *Ecological Applications* 20 (4): 1074-1086.
- Garten, C.T., J.L. Smith, D.D. Tyler, J.E. Amonette, V.L. Bailey, D.J. Brice, H.F. Castro, R.L. Graham, C.A. Gunderson, R.C. Izaurralde, P.M. Jardine, J.D. Jastrow, M.K. Kerley, R. Matamala, M.A. Mayes, F.B. Metting, R.M. Miller, K.K. Moran, W.M. Post III, R.D. Sands, C.W. Schadt, J.R. Phillips, A.M. Thomson, T. Vugteveen, **T.O. West**, and S.D. Wullschleger. 2010. Intra-annual changes in biomass, carbon, and nitrogen dynamics at 4-year old switchgrass field trials in west Tennessee, USA. *Agriculture, Ecosystems and Environment* 136: 177-184.
- De La Torre Ugarte, D., B.C. English, C. Hellwinckel, **T.O. West**, K.L. Jensen, C.D. Clark, R.J. Menard. 2009. Analysis of the Implications of Climate Change and Energy Legislation to the Agricultural Sector. Institute of Agriculture, University of Tennessee, Knoxville, Tennessee.
- West, T.O.**, N. Singh, G. Marland, B.L. Bhaduri, A. Roddy. 2009. The human carbon budget: An estimate of the spatial distribution of metabolic carbon consumption and release in the United States. *Biogeochemistry* 94: 29-41, DOI 10.1007/s10533-009-9306-z.
- Nelson, R.G., C.M. Hellwinckel, C.C. Brandt, **T.O. West**, D.G. De La Torre Ugarte, and G. Marland. 2009. Energy use and carbon dioxide emissions from cropland production in the United States, 1990-2004. *Journal of Environmental Quality* 38: 418-425.
- Post W.M., J.E. Amonette, R. Birdsey, C.T. Garten Jr., R.L. Graham, R.C. Izaurralde, P.M. Jardine, J. Jastrow, R. Lal, G. Marland, B.A. McCarl, A.M. Thomson, **T.O. West**, S.D. Wullschleger, and F.B. Metting. 2009. Terrestrial carbon sequestration – Science for enhancement and implementation. In B.J. McPherson and E.T. Sundquist, editors. *Carbon Sequestration and its Role in the Global Carbon Cycle*. AGU Monograph Series No. 183. pp. 73-88.
- Gunderson, C.A., E.B. Davis, H.I. Jager, **T.O. West**, R.D. Perlack, C.C. Brandt, S.D. Wullschleger, L.M. Baskaran, M.E. Downing, E.G. Wilkerson. 2008. Exploring potential U.S. switchgrass production for cellulosic ethanol. ORNL/TM-2007/183. Environmental Sciences Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee.

- West, T.O.**, C.C. Brandt, B.S. Wilson, C.M. Hellwinckel, D.D. Tyler, G. Marland, D.G. De La Torre Ugarte, J.A. Larson, R. Nelson. 2008. Estimating regional changes in soil carbon with high spatial resolution. *Soil Science Society of America Journal* 72: 285-294.
- West, T.O.** and J. Six. 2007. Considering the influence of sequestration duration and carbon saturation on estimates of soil carbon capacity. *Climatic Change* 80:25-41, DOI 10.1007/s10584-006-9173-8.
- Ogle, S., K. Davis, A. Andrews, K. Gurney, **T.O. West**, R.B. Cooke, T. Parkin, J. Morissette, S. Verma, and S. Wofsy. 2006. Science plan: Mid-Continent Intensive Campaign of the North American Carbon Program. Available at www.nacarbon.org/nacp/documents/NACP_MCI_SciPlan_8-06.pdf. NACP, Greenbelt, MD.
- Jain, A.K., **T.O. West**, X. Yang, and W.M. Post. 2005. Assessing the impact of changes in climate and CO₂ on potential carbon sequestration in agricultural soils. *Geophysical Research Letters* 32, L19711, doi:10.1029/2005GL023922.
- West, T.O.** and A.C. McBride. 2005. The contribution of agricultural lime to carbon dioxide emissions in the United States: dissolution, transport, and net emissions. *Agriculture, Ecosystems and Environment* 108:145-154.
- Post, W.M., R.C. Izzaurralde, J.D. Jastrow, B.A. McCarl, J.E. Amonette, V.L. Bailey, P.M. Jardine, **T.O. West**, and J. Zhou. 2004. Enhancement of carbon sequestration in U.S. soils. *Bioscience* 54: 895-908.
- Marland, G., C.T. Garten, W.M. Post, and **T.O. West**. 2004. Studies on enhancing carbon sequestration in soils. *Energy* 29:1643-1650.
- West, T.O.**, G. Marland, A.W. King, W.M. Post, A.K. Jain, and K. Andrasko. 2004. Carbon management response curves: estimates of temporal soil carbon dynamics. *Environmental Management* 33: 507-518.
- West, T.O.** and N. Peña. 2003. Determining thresholds for mandatory reporting of greenhouse gas emissions. *Environmental Science and Technology* 37:1057-1060.
- Marland, G., **T.O. West**, B. Schlamadinger, L. Canella. 2003. Managing soil organic carbon in agriculture: the net effect on greenhouse gas emissions. *Tellus B* 55: 613-622.
- West, T.O.** and G. Marland. 2003. Net carbon flux from agriculture: Carbon emissions, carbon sequestration, crop yield, and land-use change. *Biogeochemistry* 6:73-83.
- West, T.O.** and W.M. Post. 2002. Soil organic carbon sequestration rates by tillage and crop rotation: A global analysis. *Soil Science Society of America Journal* 66:1930-1946.
- West, T.O.** and G. Marland. 2002. Net carbon flux from agricultural ecosystems: Methodology for full carbon cycle analyses. *Environmental Pollution* 116:437-442.
- West, T.O.** and G. Marland. 2002. A synthesis of carbon sequestration, carbon emissions, and net carbon flux in agriculture: Comparing tillage practices in the United States. *Agriculture, Ecosystems, and Environment* 91:217-232.
- West, T.O.** and M.K. Wali. 2002. Modeling regional carbon dynamics and soil erosion in disturbed and rehabilitated ecosystems as affected by land use and climate. *Water, Air and Soil Pollution* 138:141-164.
- Marland G., **T.O. West**, and J. Fenderson. 2001. Carbon emitted, carbon saved. CDIAC Communications Newsletter. Issue No. 28. Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, Oak Ridge, Tennessee.
- Wali, M.K., F. Evrendilek, **T.O. West**, S. Watts, D. Pant, H. Gibbs, and B. McClead. 1999. Assessing terrestrial ecosystem sustainability: Usefulness of modeling regional carbon and nitrogen budgets. *Nature and Resources* 35: 21-33.
- West, T.O.** and M.K. Wali. 1999. A model for estimating sediment yield from surface-mined lands. *International Journal for Surface Mining, Reclamation and Environment* 13: 103-109.

PRESENTATIONS

- T.O. West**, V. Bandaru, C.C. Brandt, S.M. Ogle, and A. Schuh. 2011. Geospatial uptake and release of crop carbon in the United States. 3rd Annual NACP All-Investigators Meeting, New Orleans, LA: 31 January – 4 February, 2011.
- Bandaru, V., **T.O. West**, R.C. Izaurralde, W.M. Post, D. Ricciuto, E.R. Hunt. 2011. Improving estimates of crop net primary production using remote sensing, national inventory data, and crop growth model algorithms. 3rd Annual NACP All-Investigators Meeting, New Orleans, LA: 31 January – 4 February, 2011.
- Ogle, S.M., **T.O. West**, A. Schuh, S. Liu, Z. Li, R.C. Izaurralde, V. Bandaru, D. Cooley, and MCI Science Team. 2011. Comparing modeled cropland carbon dynamics from multiple contributions to the mid-continent intensive campaign. 3rd Annual NACP All-Investigators Meeting, New Orleans, LA: 31 January – 4 February, 2011.
- T. Lauvaux, A. Schuh, A.E. Andrews, A. Jacobson, M. Uliasz, **T.O. West**, S. Richardson, N. Miles, D. Cooley, K.R. Gurney, L.I. Diaz, K.J. Davis. 2011. Network design for high resolution inversions: How many towers are needed to constrain a regional carbon balance? 3rd Annual NACP All-Investigators Meeting, New Orleans, LA: 31 January – 4 February, 2011.
- Ogle, S.M., **T.O. West**, A. Schuh, D. Cooley, K.R. Gurney, L.S. Heath, J. Smith, S. Liu, Z. Li, R.C. Izaurralde, V. Bandaru, F.J. Breidt, K.J. Davis, and MCI Science Team. 2011. Inventory of CO₂ flux for the mid-continent region of the United States. 3rd Annual NACP All-Investigators Meeting, New Orleans, LA: 31 January – 4 February, 2011.
- Schuh, A., T. Lauvaux, S.M. Ogle, K.J. Davis, S. Denning, D. Cooley, F.J. Breidt, N. Miles, S. Richardson, L.I. Diaz, M. Uliasz, A. Jacobson, K. Mueller, S. Gourджи, A.E. Andrews, and **T.O. West**. 2011. Contrasting atmospheric CO₂ inversion results at a regional scale over the highly-inventoried area of the Mid-Continental Intensive. 3rd Annual NACP All-Investigators Meeting, New Orleans, LA: 31 January – 4 February, 2011.
- McGuire, A.D., D.J. Hayes, G. Stinson, D. Turner, Y. Wei, L.S. Heath, W. Kurz, **T.O. West**, B. McConkey, B. de Jong, D.N. Huntzinger, W.M. Post, R.B. Cook, NACP Regional Synthesis Participants. 2011. Towards better-constrained assessments of the carbon balance of North America in the 21st Century: a comparison of recent model and inventory-based estimates. 3rd Annual NACP All-Investigators Meeting, New Orleans, LA: 31 January – 4 February, 2011.
- West, T.O.** 2011. Cropland Carbon Inventory. North American Carbon Program, Mid-Continent Intensive Campaign Workshop. Colorado State University, Fort Collins, Colorado: 11-13 January, 2011.
- Thomson, A.M., R.C. Izaurralde, K. Calvin, X. Zhang, M. Wise, **T.O. West**. 2010. Integrating a detailed agricultural model in a global economic framework: new methods for assessment of climate mitigation and adaptation opportunities. 2010 Fall AGU Meeting, San Francisco, California: 13-17 December, 2010.
- Hellwinckel, C.M., **T.O. West**, D. De La Torre Ugarte, R. Perlack. 2010. Modeling joint climate and bioenergy policies: challenges of integrating economic and environmental data. 2010 Fall AGU Meeting, San Francisco, California: 13-17 December, 2010.
- Schuh, A.E., S.M. Ogle, K.J. Davis, A. Denning, T. Lauvaux, N.L. Miles, S. Richardson, A.R. Jacobson, A.E. Andrews, M. Uliasz, L.I. Diaz, **T.O. West**, D.S. Cooley. 2010. Top-down bottom-up comparisons of the mid-continental intensive (MCI) region. 2010 Fall AGU Meeting, San Francisco, California: 13-17 December, 2010.
- Davis, K.J., A.E. Andrews, M. Cambaliza, A. Denning, K.R. Gurney, T. Lauvaux, N.L. Miles, S.M. Ogle, A. Possolo, S. Richardson, A.E. Schuh, P.B. Shepson, C. Sweeney, J.C. Turnbull, **T.O. West**, and J.R. Whetstone. 2010. Greenhouse gas emissions derived from regional measurement networks and atmospheric inversions: results from the MCI and INFLUX experiments. 2010 Fall AGU Meeting, San Francisco, California: 13-17 December, 2010.

- West, T.O.** 2010. Improving estimates of current and future carbon stocks and fluxes on US agricultural lands using satellite remote sensing. University of Maryland, Department of Geography, College Park, Maryland: 21 October 2010.
- Ogle, S., T.O. West, A. Schuh, T. Lauvaux, J. Breidt, D. Cooley, N. Miles, S. Richardson, L. Diaz, A. Andrews, G. Petron, C. Izaurrealde, S. Liu, Z. Li, L. Heath, J. Smith, E. Lokupitiya, K. Gurney, S. Denning, K. Davis. 2010. MCI Regional Intensive. NACP 3rd Interim Synthesis Workshop. CIRES Conference Center, University of Colorado, Boulder, Colorado: 25-27 August, 2010.
- Bandaru, V., X. Zhang, S. Kang, C. Izaurrealde, W.M. Post, **T.O. West**. 2010. Defining and Locating Marginal Lands: Biophysical Metrics. Great Lakes Bioenergy Research Center Annual Meeting, Century Center, South Bend, Indiana: 17-19 May, 2010.
- West, T.O.** 2010. Estimating Soil Carbon Sequestration Potential: Regional Differences and Remote Sensing. Technical Working Group on Agricultural Greenhouse Gases (T-AGG): Experts Meeting, Chicago, Illinois: 22-23 April, 2010.
- West, T.O.,** V. Bandaru, C.C. Brandt, R. Perlack, C. Hellwinckel, D.G. De La Torre Ugarte, and R. Nelson. 2010. Potential legislative and economic impacts on cropland management and carbon dynamics in the United States. 2010 NASA Terrestrial Ecology Science Team Meeting. Scripps Seaside Forum, La Jolla, California: 15-17 March, 2010.
- West, T.O.,** V. Bandaru, C.C. Brandt, A.E. Schuh, K.R. Gurney, L.S. Heath, R.C. Izaurrealde, S. Liu, Z. Li, S.M. Ogle. 2009. Estimating carbon dioxide fluxes from sources and sinks in the mid-continent intensive using inventories and satellite remote sensing. 2009 AGU Fall Meeting, San Francisco: 14-18 December, 2009.
- West, T.O.** 2009. A10 Session—Estimating Current and Future Biomass Feedstocks: Integrative Approaches using Field Data, Remote Sensing, Economics, and Land-Use Change Modeling. *Session Chair.* ASA/SSSA/CSA 2009 Annual Meeting. Pittsburgh, Pennsylvania: 1-5 November, 2009.
- West, T.O.** 2009. Integrative Framework for Estimating Available Cellulosic Feedstocks: National Field Trials, Remote Sensing, and Economic Projections. ASA/SSSA/CSA 2009 Annual Meeting. Pittsburgh, Pennsylvania: 1-5 November, 2009.
- West, T.O.,** K. Kline, C. Hellwinckel, L.M. Eaton, M.E. Downing, V.H. Dale, G.A. Oladosu. 2009. Energy inputs for 1st and 2nd generation ethanol feedstocks: Modeling effects of cultivation practices and crop selection on greenhouse gas emissions. Argonne National Laboratory, Argonne, Illinois: 20-21 October, 2009.
- West, T.O.,** V. Bandaru, G. Serbin, R. Hunt, and R.C. Izaurrealde. 2009. Using earth observations for ecological research: experiences, challenges, and future directions for agricultural applications. 2009 IEEE International Geoscience and Remote Sensing Symposium, Cape Town, South Africa: 13-17 July, 2009
- West, T.O.** 2009. The Potential of Soil to Sequester Carbon. Workshop on Determination of Soil Organic Carbon in Agricultural Soils Spanning North America. NASA Jet Propulsion Laboratory, Pasadena, California: 26-28 May, 2009.
- West, T.O.,** V. Bandaru, and C. Brandt. 2009. Estimating Cropland Management and Biomass Feedstock Availability: Integrating Satellite Remote Sensing with Socio-economic Modeling. Special Session: Monitoring, Mapping, and Estimating the Bioenergy Domain. American Society of Photogrammetry and Remote Sensing 2009 Annual Conference. Baltimore Marriott Waterfront Hotel, Baltimore, Maryland: 9-13 March, 2009.
- West, T.O.** 2009. Inventory-based Carbon Budget for the MCI Interim Synthesis. 2nd NACP All-Investigators Meeting. Town and Country Inn, San Diego, California: 17-20 February 2009.
- West, T.O.** 2009. Ecological and Geospatial Modeling for Sustainable Production of Biomass Energy Crops. University of Tennessee, Dougherty Hall: 20 January, 2009.
- West, T.O.,** C. Brandt, B. Perlack, M. Downing, D. De La Torre Ugarte, C. Hellwinckel, B. Wilson, J. Larson, and R. Nelson. 2008. Modeling and mapping land management and net carbon emissions: decision support for biofuels and carbon management on U.S. agricultural lands.

- NASA Carbon Cycle and Ecosystems Joint Science Workshop. University of Maryland Inn and Conference Center, Adelphi, Maryland: 28 April – 2 May, 2008. [poster]
- Doney, S., R. Birdsey, S. Goward, J. Sarmiento, D. Skole, **T. West**. 2008. Carbon management: overview of biotic approaches. NASA Carbon Cycle and Ecosystems Joint Science Workshop. University of Maryland Inn and Conference Center, Adelphi, Maryland: 28 April – 2 May, 2008.
- DeFries, R., **T. West**, J. Foley, B.L. Turner, G. Asner, C. Morton, D. Nepstad, E. Ellis. 2008. Land use choices: what have we learned and future challenges. NASA Carbon Cycle and Ecosystems Joint Science Workshop. University of Maryland Inn and Conference Center, Adelphi, Maryland: 28 April – 2 May, 2008.
- West, T.O.** 2008. Teacher Excellence AP Biology: Biogeochemistry Workshop. Institute for Secure and Sustainable Environment, University of Tennessee, Knoxville, Tennessee.
- West, T.O.**, C. Brandt, H. Jager, R. Perlack, L. Baskaran, A. Shamey. 2007. GIS-based biomass resource sustainability analysis. Feedstock Platform Portfolio Peer Review, Washington, D.C.: 21, August, 2007.
- West, T.O.** 2007. Regional agricultural inventory approaches: methods and applications. 2007 NCAR ASP Colloquium on Regional Biogeochemistry, Boulder, Colorado: 4-15 June, 2007.
- West, T.O.** 2007. Potential for use of geographical information systems in feedstock resource assessments. University of Maryland, Adelphi, Maryland: 3 May, 2007.
- West, T.O.** 2007. Combining remote sensing, inventory data, and economic modeling for spatial estimates of land management and carbon flux. Forestry and Agriculture Greenhouse Gas Modeling Forum. Shepherdstown, West Virginia: 5-8 March, 2007.
- West, T.O.** 2007. Spatial modeling of biomass feedstocks in the United States. Sun Grant Initiative, Regional Feedstock Partnerships, and GIS Coordination Meeting, Oak Ridge, Tennessee: 6 February, 2007.
- West, T.O.** 2007. Continental and regional observations and experiments: agricultural systems and land use. U.S. North American Carbon Program Investigators Meeting, Colorado Springs, Colorado: 22-27 January, 2007.
- West, T.O.** 2006. Spatially explicit full carbon and greenhouse gas accounting for the Midwestern and continental US: Modeling and decision support for carbon management. American Geophysical Union, San Francisco, California: 11-15 December, 2006.
- West, T.O.** 2006. Integration and analysis of spatial data for use in bioenergy projects. DOE EERE – Sun Grant Initiative meeting, Washington, D.C.: 5 December, 2006.
- West, T.O.** 2006. Carbon management in agricultural systems: integration of field measurements, inventory data, remote sensing, and agricultural economics. NASA Joint Workshop on Biodiversity, Terrestrial Ecology, and Related Applied Sciences. University of Maryland, Adelphi, Maryland: 21-25 August, 2006.
- West, T.O.**, C.C. Brandt, B.S. Wilson, C.M. Hellwinckel, M. Mueller, D.D. Tyler, D.G. De La Torre Ugarte, J.A. Larson, R.G. Nelson, G. Marland 2006. Estimating regional changes in soil carbon with high spatial resolution: Integrating field measurements, inventory data, and remote sensing products. NASA Joint Workshop on Biodiversity, Terrestrial Ecology, and Related Applied Sciences, Adelphi, Maryland: 21-25 August, 2006 [poster]
- West, T.O.** 2006. Developing bottom-up estimates of net carbon flux using inventory data, remote sensing, and economic modeling: A case study for agricultural lands in the US Mid-Continental Region. A workshop for the North American Carbon Program – Mid-Continental Intensive Campaign. Boulder, Colorado: 21-22 February 2006.
- Sabesan, A., **West, T.O.**, Marland, G., Bhaduri, B. 2006. A spatial quantification of the lateral flow of carbon from U.S. agricultural lands. American Society for Photogrammetry and Remote Sensing, Reno Nevada, 1-5, May 2006.
- West, T.O.** 2005. B25 Session: Regional Carbon Cycle Studies: Progress and Methods. *Session Co-Chair*. American Geophysical Union, San Francisco, California: 5-9 December, 2005.

- McBride, A.C. and **T.O. West**. 2005. Estimating net CO₂ emissions from agricultural lime applied to soils. American Geophysical Union, San Francisco, California, 5-9, December 2005 [poster].
- Sabesan, A., **T.O. West**, G. Marland, and B.L. Bhaduri. 2005. Lateral flow of carbon from U.S. agricultural lands: carbon uptake, consumption, and respiration. American Geophysical Union, San Francisco, California, 5-9, December 2005.
- West, T.O.**, G. Marland, D. De La Torre Ugarte, J. Larson, C. Hellwinkle, and B. Wilson. 2005. Developing bottom-up estimates of net carbon flux using survey data and remote sensing: A case study of the U.S. mid-continental region. American Geophysical Union, San Francisco, California, 5-9, December 2005.
- West, T.O.** 2004. Soil C steady state, interannual variation, and permanence: implications for a carbon sequestration implementation plan. Forestry and Agriculture Greenhouse Gas Modeling Forum. Sponsored by U.S. EPA, USDA-Forest Service, and Agri-Food Canada. National Conservation Training Center, Shepherdstown, West Virginia: 12-15 October, 2004.
- West, T.O.** 2004. Agricultural modeling of C fluxes and full C accounting. AmeriFlux Annual Science Team Meeting. Boulder, Colorado: 5-7 October, 2004.
- West, T.O.** 2004. Soil Carbon Sequestration: Capacity and Duration. NETL Third Annual Conference on Carbon Sequestration. Hilton Alexandria Mark Center, Alexandria, Virginia: 3-6 May 2004.
- West, T.O.** 2004. Land Management and Soil Carbon Dynamics: Ecology of Terrestrial Carbon Sequestration. School of Natural Resources Winter 2004 Seminar Series, The Ohio State University, Columbus Ohio: 5 February, 2004.
- West, T.O.** 2004. Capacity and Duration of Carbon Sequestration in Agricultural Soils. A CASMGS Forum on Agriculture and Energy Partnerships for Using Soil Carbon Sequestration to Offset Greenhouse Gases. The George H. Bush Presidential Library Conference Center, College Station, Texas: 20-22 January, 2004.
- West, T.O.** 2003. Efficacy and Longevity of Varying Carbon Storage Practices. National Academies, Board on Agriculture and Natural Resources workshop on Direct and Indirect Human Contributions to Terrestrial Greenhouse Gas Fluxes. Keck Center of the National Academies, Washington, DC: 23-25 September, 2003.
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