WEBLIOGRAPHY on CARBON SEQUESTRATION

prepared for
NORTHEAST PASTURE CONSORTIUM
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Martha Holdridge
West Wind Farm

"AMAZING CARBON" (AUSTRALIA)

http://www.amazingcarbon.com/
Home page of Dr. Christine Jones, soil scientist, founder of Australian Soil Carbon Accreditation Scheme, a voluntary carbon trading system. It includes references to many articles on soil carbon, including:

http://www.amazingcarbon.com/PDF/FAO_Communique_soilcarbon%20(Oct08).pdf
Combined policy statement by UN/FAO, the Conservation Technology Center, and Conservation Agriculture Carbon Offset Consultation

http://www.amazingcarbon.com/PDF/JONES-OurSoilsOurFuture(8July08).pdf
article by Dr. Jones on needed changes in management of Australian soils

http://www.amazingcarbon.com/PDF/Jones-EvergreenFarming(Sept07).pdf
article by Dr. Jones on "turning air into soil" by means of photosynthesis, resynthesis, exhudation, and humification

http://www.amazingcarbon.com/PDF/Farmingaclimatechangesolution_Ecos141.pdf
article about Dr. Christine Jones in ECOS

http://www.amazingcarbon.com/PDF/JONES-CarbonSinks(11Sept08).pdf
Australian Senate committee: Submission by Dr. Jones for inquiry into possibility of establishing a project based soil carbon offsets scheme to include both forests and appropriately managed grasslands. By appropriate she means a perennial pasture base fertilized by biology-friendly fertilizers and used for both cropping and grazing enterprises. In this paper she also discusses measuring soil carbon and recommends testing to the rooting depth.

http://www.amazingcarbon.com/PDF/JONES%20AustSoilCarbonAccScheme(18Jan08).pdf
Submission by Dr. Jones to an Australian/New Zealand commission. Note p. 7 line 4 concerning the need to use biologically based fertilizers. Also note p. 7, Box 3.2. concerning critical importance of pasture management and type of fertilizer used in order to achieve net carbon sequestration.

AMERICAN FARMLAND TRUST (AFT)

http://www.farmland.org/
Home page for American Farmland Trust

http://www.farmland.org/programs/environment/workshops/August-2008-public.asp
Workshop on "Agriculture's Role in Mitigating Climate Change." Over 40 producers, crop and industry consultants, and leaders from key agricultural groups from around the country engaged in a workshop co-sponsored by Farm Foundation, USDA Economic Research Service (ERS), and AFT in Washington, DC. Participants were able to recommend 15 priority policy needs to include in developing climate change policy.

The following six briefing papers, commissioned by AFT, and one presentation cover the most important issues in developing policies for a carbon offset market:

http://www.farmland.org/programs/environment/workshops/documents/Hohenstein-AFT-ERS-workshop.pdf
Greenhouse Gas Offsets Opportunities for Agriculture and Forestry
William Hohenstein, USDA Global Change Program presentation

http://www.farmland.org/programs/environment/workshops/documents/OffsetsvsAllowancesbriefingpaper.pdf
Offsets vs. Allowances - Marc Ribaudo, USDA Economic Research Service
Briefing Paper / Presentation

http://www.farmland.org/programs/environment/workshops/documents/Additionalitybriefingpaper.pdf
* Additionality in Greenhouse Gas Mitigation - Jan Lewandrowski, USDA Global Change Program
Briefing Paper / Presentation

http://www.farmland.org/programs/environment/workshops/documents/Leakagebriefingpaper.pdf
* Leakage in Greenhouse Gas Mitigation - Jan Lewandrowski, USDA Global Change Program
Briefing Paper / Presentation

http://www.farmland.org/programs/environment/workshops/documents/PermanenceandReversalRiskbriefingpaper.pdf
Permanence and Reversal Risk in Agriculture, Land Use Change and Forest Carbon Projects
Brian C. Murray, Nicholas Institute for Environmental Policy Studies, Duke University
Briefing Paper / Presentation

http://www.farmland.org/programs/environment/workshops/documents/TreatmentofEarlyActorsbriefingpaper.pdf
"Treatment of Early Actors," Lydia Olander, Nicholas Institute for Environmental Policy Studies, Duke University
Briefing Paper / Presentation

http://www.farmland.org/programs/environment/workshops/documents/MonitoringComplianceandEnforcementbriefingpaper.pdf
Monitoring, Compliance and Enforcement - Steven Kraft, Agribusiness Economics, Southern Illinois University and Christopher Lant, Geography and Environmental Resources, Southern Illinois University
Briefing Paper / Presentation

"BEEF" MAGAZINE - "Profiting from Global Warming" by Troy Marshall
http://beefmagazine.com/cowcalfweekly/0926-profit-global-warming/index.html
Cites experience in Australia with carbon offsets and potential for U.S. producers.

CHICAGO CLIMATE EXCHANGE (CCX)
http://www.theccx.com/docs/offsets/Soil_Carbon_Offsets_faq.pdf
Home page for the Chicago Climate Exchange

http://www.theccx.com/content.jsf?id=582
Offset project registration described.

http://www.theccx.com/content.jsf?id=1101
Describes rangeland soil carbon offsets. Contains useful background, but at present this offset category cannot be applied to Eastern grasslands.

http://www.theccx.com/docs/offsets/CCX_Rulebook_Chapter09_OffsetsAndEarlyActionCredits.pdf#page=142
CCX Rule Book, Rangeland Soil Carbon Management Project – 174 pages

http://www.theccx.com/docs/offsets/Soil_Carbon_Offsets_faq.pdf
Official CCX FAQ that discusses CCX policies and procedures for establishing Carbon offsets in agricultural soils. Also includes references from the United Nations Framework Convention on Climate Change that apply to agricultural soils management. Focus is on no-till cropping. Little or no mention of managed grasslands.

CARBON FARMERS of AMERICA
http://www.carbonfarmersofamerica.com/index.htm
Carbon Farmers of America, LLC was created in 2006 by a group of family farmers in Vermont and Massachusetts committed to the health of the Earth and dedicated to rebuilding prosperity in our rural communities. Carbon Farmers of America (CFA) trains, equips and provides ongoing consultation and support to member farmers across America to rapidly create new, high organic-matter topsoil. With our member farmers, we carefully record the process of soil building on each farm, and scientifically monitor the carbon levels in their soils each year. All carbon monitoring is verified by a third party. CFA sells carbon sinks (1 T. CO2 = one carbon sink) to the public for $25 of which $19 goes to the farmer and $6 for administration and training.

CHRISTIAN SCIENCE MONITOR - 8/16/07
http://www.csmonitor.com/2007/0816/p13s01-sten.html
"How Better-fed Cows Could Cool the Planet" by Bettina Gartner
When cows digest, they burp methane gas, a powerful greenhouse agent. Scientists are working to try to reduce that.

EPA re: methane from cattle on pastures
http://www.epa.gov/methane/sources.html

Under Livestock Manure Management: "Manure deposited on fields and pastures, or otherwise handled in a dry form, produces insignificant amounts of methane." Under Livestock Enteric Fermentation: "ruminant animals (cattle, buffalo, sheep, goats, and camels) produce significant amounts of methane as part of their normal digestive processes." For detail see "US Inventory Report" from this URL.

EPA – recommendations from Tom Wirth (US EPA – Climate Change Division)
http://www.epa.gov/rlep/index.html

This is the EPA website for the program, Ruminant Livestock Efficiency Program. Click the "Resources and Tools" link if you want to see the electronic version of a large EPA poster.

http://epa.gov/climatechange/emissions/usgginventory.html

This is the EPA website for the national greenhouse gas inventory. In the Executive Summary the Agriculture section is on page ES12 and a section on sources of N2O (largest source fertilizer applications) and of NH4 (enteric fermentation, second largest source) is found on page ES9.

FAO – Food and Agriculture Organization of the United Nations
http://www.iisd.ca/mea-l/guestarticle65.html

This is a summary article, titled "Climate Change Mitigation: Tapping the Potential of Agriculture." It describes a remarkable departure from previous UN positions, which had not recognized the potential of agriculture through carbon sequestration to mitigate climate change. It is based on an FAO submission to the UNFCCC Ad Hoc Working Group on Long Term Cooperative Action.

http://unfccc.int/resource/docs/2008/smsn/igo/036.pdf

This is the complete submission. It is titled: "Enabling Agriculture to Contribute to Climate Change Mitigation." Agriculture is recognized here as a sector with significant mitigation potential. This document says that farmers, ranchers, herders, and other land users can and should be part of the solution to climate change. "The focus of this submission is on soil carbon sequestration in view of its high mitigation potential, its relevance to small holders, and its current exclusion from the CDM"

IFAP - International Federation of Agricultural Producers
http://www.ifap.org/en/ClimateChangeFarmersSolutions.htm

This is the Overview of a late-May, 2009, conference held in Copenhagen, Denmark, in preparation for the December UN Climate Change Conference. It was sponsored by the IFAP and the Danish Agricultural Council. On May 27 it issued a declaration, entitled "Farmers Solutions to Climate Change: Proposals for Including Agriculture in a Post-Kyoto Agreement." It discusses policies and systems to adapt to climate change and also to mitigate climate change. It notes that there are new and reliable methods for measuring carbon sequestration in soils. It advocates that agriculture be a part of the sustainable green revolution that can help to mitigate climate change.

NEW YORK TIMES - 2/19/09
http://roomfordebate.blogs.nytimes.com/2009/02/19/the-epa-puts-on-the-heat/

Who Should Regulate Green House Gasses? Four opinions plus comments

VIRGINIA TECH
http://www.ext.vt.edu/pubs/bse/442-138/442-138.pdf

Virginia Landowners Guide to the Carbon Market – Publication 442-138, 2009, 8 pages by Virginia Cooperative Extension. Discusses how to develop carbon offsets and to earn carbon credits by conservation tillage, grassland establishment (not management!), and certain forestry projects. Defines useful terns: aggregator, carbon credit, carbon offest, carbon reserve pool, carbon sink, third party auditors, additionality, CCX, and GWP. Lists six aggregators that operate in Virginia. Does not mention grazing lands or pastures as carbon offsets.

UNITED NATIONS – Intergovernmental Panel on Climate Change
http://www.guardian.co.uk/environment/2008/sep/07/food.foodanddrink.

A report of a September 2008 speech by Dr. Rajendra Pachauri, chair of the UN Intergovernmental Panel on Climate Change, and the UN's FAO in London. Dr. Pachauri blames meat production, especially cattle, for nearly 20% of global GHG emissions. He and the FAO do not distinguish between feedlot production and grass-based production. Dr. Pachauri, a vegetarian, wants us all to have at least one meat-free day per week. A rebuttal commentary favoring grass-fed meats is at http://www.guardian.co.uk/commentisfree/2008/sep/08/food.unitednations.

Problem is that so far as I know, the author has no official or other significant position.