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Carbon Market Trading in a “State of Fear”

Gary D. Lynne
University of Nebraska-Lincoln

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Market Report	Yr Ago	4 Wks Ago	1/7/05
Livestock and Products, Weekly Average			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight	$74.89	$84.76	$87.33
Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb	113.36	121.50	123.36
Nebraska Feeder Steers, Med. & Large Frame 750-800 lb	90.64	109.00	105.10
Choice Boxed Beef, 600-750 lb. Carcass	131.38	145.61	140.76
Western Corn Belt Base Hog Price Carcass, Negotiated	49.47	70.57	71.15
Feeder Pigs, National Direct 45 lbs, FOB	31.02	60.77	64.60
Pork Carcass Cutout, 185 lb. Carcass, 51-52% Lean	56.44	75.18	73.08
Slaughter Lambs, Ch. & Pr., 90-160 lbs., Shorn, Midwest	88.00	93.87	100.00
National Carcass Lamb Cutout, FOB	209.50	240.20	244.48
Crops, Daily Spot Prices			
Wheat, No. 1, H.W. Omaha, bu	4.01	3.35	3.39
Corn, No. 2, Yellow Omaha, bu	2.51	1.74	1.79
Soybeans, No. 1, Yellow Omaha, bu	8.08	5.32	5.34
Grain Sorghum, No. 2, Yellow Columbus, cwt	4.25	2.57	2.63
Oats, No. 2, Heavy Minneapolis, MN , bu	1.80	1.79	1.85
Hay			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton	115.00	115.00	115.00
Alfalfa, Large Rounds, Good Platte Valley, ton	65.00	62.50	62.50
Grass Hay, Large Rounds, Good Northeast Nebraska, ton	57.50	57.50	57.50

* No market.

Newspaper columnist George F. Will ("Crichton's New Book Punctures Certitude About Global Warming," Omaha World Herald (OWH), January 5, 2005, p. 7B) recently applauded a new novel, *State of Fear*, which proclaims global warming and the possibility for catastrophic changes in the climate as less than certain, if not an outright attempt to unduly stir fear in people. (I have not yet read the novel, so am relying here on those who have)! George Will sees the novel as helping us become "wholesomely skeptical" about global warming and climate change. On the same page in the Herald (thank-you, OWH, for providing balance), another columnist, Wayne Madsen ("'State of Fear' Smears Scientists and Serves Big-Business Agenda") declares that Crichton's novel "not only unfairly bashes the global environmental movement but represents yet another example of how multi-national corporations and their political allies are invading the popular culture to advance fanatic and lunatic right-wing ideas and agendas." As noted, I have not yet read the novel, but have been reading the arguments and counter arguments about global warming now for many months, going on several years. In fact, whole centers of learning and information, many with their own websites have emerged on both sides of this issue, albeit most of the scientific community (and the sheer numbers of such centers and websites) do support the notion there is substantive global warming. The website maintained by the Nebraska Carbon Sequestration Advisory Committee, a group created by the Nebraska Unicameral and appointed by Governor Johanns, provides links to sites and information on both sides of this issue (see http://www.carbon.unl.edu).

Intriguingly, while the Crichton's of the world are writing entertaining novels, and the columnists rattle on about this and that, and movie writers/directors offer dramatic thrillers on climate change such as "The Day After Tomorrow," all to make their own point, Europeans and most of the rest of the world community are going forward. As you may have noticed in the newspapers last fall the

Kyoto Protocol was signed by Russia, which brings it into force as an international greenhouse gas agreement. The Protocol puts in place caps on emissions in all countries that have ratified.

With caps in place, the evolution of carbon emission markets becomes possible, through this substantive "third way" partnership between government (representing community) and markets (representing individuals) to address global warming. Trading in emissions allowances officially started within the European Union on New Years day. Within 6-days "carbon dioxide emissions trading volumes broke through the 10-million-tonnes barrier... (announced on the http://www.pointcarbon.com website on January 6, 2005)." Over 450,000 emission allowances were traded on January 6 alone. The market closed that day at €8.05/metric tonne ($9.46 per ton, using the current exchange rate). Most of the trading to date has been among the electric utilities who use hydrocarbon fuels. Eventually, various other industries will also be entering the market, although uncertainties arise due to the fact that not all national allocation plans (which set limits and caps in each firm and industry) are in place. Plans are still missing in Italy, Poland, Greece and the Czech Republic, all of which will likely be in place by the end of January (see "Carbon Market Europe," December 17, 2004, a newsletter published by Point Carbon). Intriguingly, Canada, as well as several representatives in the U.S. business community, especially those involved in global business, have expressed some interest in linking to the European Union emissions trading market. There is also some early talk about linking the European Union trading with U.S. state-level initiatives, e.g. the cap and trade plans being considered in the Northeastern U.S. (see "Carbon Market Europe," December 10 and 23, 2004).

For Nebraskans, none of this is of much direct concern, at least not yet. We do not have any state level initiatives in place regarding carbon trading, so there is no market activity here, although the Chicago Climate Exchange has expressed some interest in carbon (stored) offsets in Nebraska. Neither Congress nor the Administration is likely to agree to emissions caps anytime in the near future. The U.S. is holding out for the rapidly developing nations, e.g. China, to also come to the table with agreements to cap emissions. These nations in turn are reluctant to do so, as it is well recognized that economic growth on this planet has been fueled by the hydrocarbons (coal, natural gas, crude oil) which cannot be used without producing carbon dioxide, one of the most ubiquitous greenhouse gases. There are currently few energy substitutes, although eventually wind energy and other forms of solar energy (yes, wind is driven by the climatic system, which in turn is powered by the sun) will play a substantial role.

So, many concerned with economic development, including several in the Bush Administration, believe we must find ways to continue using the hydrocarbons, especially the coal resources, for at least the next 40-100 years. (During which time crude oil will become very expensive, and it will likely not be financially feasible to use it as a motor fuel). Doing so without contributing substantially to global warming can be accomplished to some extent with improved efficiencies (e.g. better gas mileage; more efficient electricity generating plants), but the real hope may rest in carbon sequestration.

The vision expressed by the Administration is one of moving the U.S. economy to a hydrogen economy while still using the familiar hydrocarbon fuels, producing hydrogen from the hydrocarbons, in particular from coal. The idea is to use coal to produce both electricity for delivery through the nation's electric grids and hydrogen for motor fuel, while capturing and sequestering all the carbon released in the process [see Abraham, S. "The Bush Administration's Approach to Climate Change." *Science* 305 (July 30, 2004): 616-617]. This requires new generation coal burning plants, a kind of plant that does not at this time exist, although an industry-government effort has been initiated to design and build one or more within the next 10-years.

Nebraskan's may ultimately find these developments of interest, as one place to sequester carbon is in the soil of agricultural and ranch land. The capability to sequester carbon in land would compete with the capacity to store carbon dioxide in underground geologic formations. Carbon dioxide could be stored in an old coal mine or crude oil field, or in depleted natural gas reservoirs, as well as deep underground in saline aquifers. One could expect a market in carbon sequestration offsets would then also develop, with the price for stored/sequestered carbon stored in soil reflecting the price to store it in various other ways. Also, this carbon storage price would reflect the price for emissions allowances in the world's emission markets, which would be the ultimate driver. We need to keep paying attention, perhaps even reading a novel or two, following a few columnists and watch the movies, while also more carefully considering the new understanding coming out of climate science. At a minimum, it is only prudent to be ready to adapt to change as it appears.

Gary D. Lynne, (402) 472-8281
Professor, Dept. of Agricultural Economics
glynne1@unl.edu)