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Sustainable Practices Like Recycling: Could Colleges and Universities be Role Models?

For the very first time in the history of the University of Nebraska-Lincoln, this year's summer graduates wore a "green" gown for their commencement exercises. The gown is made from sustainably harvested wood pulp, with zippers made from 100 percent recycled plastics. Practices like these are a step in a positive direction, suggesting colleges and universities could become leaders in sustainable practices, as well as in ensuring that the curriculum used in helping form the education obtained by students includes sustainability principles.

Recently, a non-profit group, the Sustainable Endowments Institute, reviewed sustainable practices of 300 colleges and universities in the United States and published a College Sustainability Report Card 2011, available at: <http://www.greenreportcard.org/>

The University of Nebraska-Lincoln earned an overall grade of C (down from C+ in 2010), ranking 11th out of 12 among the Big Ten schools, with the University of Iowa being last. Creighton University, the only other Nebraska college or university graded in the report, had an overall score of B-. Such profiles show substantive potential for future progress.

In addition to shifting to renewable energy sources, sustainability is also served by addressing the fact that we never truly are able to actually "get rid of" anything, but rather we just change the form of it. It is still with us, even if buried in the landfill or otherwise deposited into the environment in water or air pollution. As a result, recycling practices in general need attention. The United States Environmental Protection Agency (EPA) reports that in the year 2009 (the year of latest data availability), Americans generated about 243 million tons of trash, with individual waste generation of 4.34 pounds per person per day. The EPA estimates that commercial and institutional waste, which includes schools, colleges and universities, contributes 35 to 45 percent of the total Municipal Solid Waste (MSW). Through recycling and composting 82 million tons of the total MSW (34 percent

Market Report	Yr Ago	4 Wks Ago	8/12/11
<u>Livestock and Products,</u>			
<u>Weekly Average</u>			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight.....	\$93.78	\$111.00	\$116.90
Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb.	134.61	162.88	150.48
Nebraska Feeder Steers, Med. & Large Frame 750-800 lb.	117.00	147.55	142.11
Choice Boxed Beef, 600-750 lb. Carcass.	153.59	180.86	176.65
Western Corn Belt Base Hog Price Carcass, Negotiated.	78.13	93.18	102.63
Pork Carcass Cutout, 185 lb. Carcass, 51-52% Lean.....	89.33	98.85	109.83
Slaughter Lambs, Ch. & Pr., Heavy, Wooled, South Dakota, Direct.....	132.50	196.00	184.75
National Carcass Lamb Cutout, FOB.	303.11	400.63	407.98
<u>Crops,</u>			
<u>Daily Spot Prices</u>			
Wheat, No. 1, H.W. Imperial, bu.....	5.43	6.71	7.08
Corn, No. 2, Yellow Omaha, bu.	3.68	7.34	7.19
Soybeans, No. 1, Yellow Omaha, bu.	10.44	13.86	13.30
Grain Sorghum, No. 2, Yellow Dorchester, cwt.....	6.55	11.80	12.00
Oats, No. 2, Heavy Minneapolis, MN , bu.	2.73	3.70	3.61
<u>Feed</u>			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton.	135.00	175.00	185.00
Alfalfa, Large Rounds, Good Platte Valley, ton.....	77.50	135.00	110.00
Grass Hay, Large Rounds, Good Nebraska, ton.	95.00	72.50	75.00
Dried Distillers Grains, 10% Moisture, Nebraska Average.	94.00	200.50	196.50
Wet Distillers Grains, 65-70% Moisture, Nebraska Average.	35.00	67.50	69.00
*No Market			



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recycling rate), were saved from ending up in landfill sites. This translates into huge energy savings as well as an annual benefit of 178 million metric tons of carbon dioxide equivalent emissions reduced, comparable to the annual GHG emissions (and related energy use) from more than 33 million passenger vehicles.

The management of municipal solid waste is primarily the responsibility of state and local jurisdictions. The importance of recycling was recognized in the Nebraska Litter Reduction and Recycling Act of 1979, which called for the implementation of a comprehensive litter and recycling program throughout the state, and the rapid development of technologically and economically feasible operational projects for the recovery of energy and resources. The later Nebraska Litter Reduction and Recycling Incentive Act of 1994 stated that, "Recycling and waste reduction are necessary components of any well managed waste management system and can extend the lifespan of a landfill and provide alternative waste management options." Yet there are no mandates, with recycling still strictly a voluntary effort, which also means that recycling is at the discretion of Nebraska's colleges and universities.

While this need not be the main reason for doing so, for most colleges and universities recycling can actually reduce costs of handling wastes. A comparative analysis of recycling programs in three universities: University of Oregon, University of Colorado–Boulder and University of Nebraska–Lincoln, showed that the average net costs for recycling were \$22-\$122 less per ton than costs for waste disposal (Jones, 2010). This finding is on par with similar findings conducted at household levels by a number of researchers – the net recycling costs are typically less than landfill disposal costs.

Yet there may be even more substantive reasons for colleges and universities to be engaged in sustainable practices like recycling. Colleges and universities are places for higher learning, embracing the need to constantly seek excellence in teaching, research and service. These entities are also often the primary intellectual and cultural resource for the city, state and nation. As the community struggles to find solutions to problems in their daily lives, they look for leadership in the university community to suggest and provide them with science based assistance. As noted earlier – we as individuals produce 4.34 lbs. solid waste per day amounting to 243 million tons in a year. These consumption habits can have serious repercussions unless recycling is addressed, especially regarding the amount of energy (which cannot be recycled), spent in and the GHG emissions associated with, the process. It follows that it may well be an important mission of the university to seek excellence in sustainability education, research and service. Colleges and universities can play a lead role, demonstrating the unique opportunities in which waste reduction and recycling enhancements are possible. Also, when one actively engages in recycling activity on campus, especially during such things as concerts,

theatre and sporting events (e.g. football, volleyball, etc.), the individual participant becomes aware of sustainability practices that he/she can employ at their own individual levels, while potentially getting a "warm-glow" in return.

Research conducted with respect to Nebraska households and their recycling choices suggests the drivers go well beyond financial incentives and ease of recycling (Kalinowski, Lynne and Johnson, 2006). While the latter are important, generally what distinguishes those who put substantial effort into recycling and those who do less of it is best described in the notion of "joining in unity with cause." Much like Nebraska football fans join and participate in "Husker Nation," they could also join in a cause like "Game Day Challenge," where Big Ten Universities could compete to see who recycles the most intensely during home football games.

A college or university can serve as a great place to teach and learn about sustainable practices such as recycling. Recycling is a powerful example of how we can "think globally and act locally" to address larger energy and waste management problems that we share. There is only one Earth, and recycling gives us a substantive way to address its long-term capacity to sustain life.

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