Eco Trends in the Food Industry

- Whether its greener packaging, energy conservation, or footprint reduction, industry members are thinking about how they affect the environment.
- What green trends have continued despite the economic downturn?
- How are companies incorporating eco-friendly practices into their business models?

According to a survey conducted by the Boston Consulting Group (www.bcg.com), the trend toward buying green continues despite the economic downturn. Results of the survey of 9,000 adults aged 18 to 35 years old from nine countries, along with executives at 20 leading consumer companies were published in a January 20, 2009, report entitled “Capturing the green advantage for consumer companies” (1).

The survey found that more consumers purchased green products in 2008 than in 2007, and more consumers were willing to pay a higher price for green products they considered to be of higher quality. According to the report, “Consumers greatly value the direct benefits that green products offer, such as superior freshness and taste, the promise of safety and health, and the savings on energy costs” (1). The report also notes that “The green movement is about reducing waste and minimizing our impact on the environment. The continuing expansion of green consciousness around the world presents a huge opportunity for smart companies. The business case for green remains compelling, especially in a tough market” (1).

Environmental issues also remain a key factor in the global concern over food production. A February 17, 2009, press release issued by the United Nations Environment Programme (UNEP) stated that a “green revolution” was needed in order to avert a worldwide food crisis (2). The release was in reference to findings published in the UNEP’s report entitled “The environmental food crises: The environment’s role in averting future food crises” (2). Achim Steiner, UN under-secretary-general and UNEP executive director, said the report’s findings suggest that, “We need a Green revolution in a Green Economy but one with a capital G. We need to deal with not only the way the world produces food but the way it is distributed, sold, and consumed, and we need a revolution that can boost yields by working with rather than against nature” (2).

Some food companies have long had what could be considered “environmental” programs in place, though they may not have been titled as such. Saving energy and streamlining production were simply part of the company’s overall efficiency and cost-saving measures. An online look at a sampling of companies in the grain-based food industry indicates an increasing trend toward the creation of specific “environmental” or “sustainable” initiatives as part of an overall corporate mission. Companies are incorporating eco-friendly practices into their business models in several ways.

Conservation of Natural Resources

In its efforts to save energy, the Briess Malt & Ingredients Company (www.briess.com) requested a U.S. Department of Energy audit and utilized thermal imaging of all its production facilities in 2006 in order to pinpoint areas of electrical and heat loss. The company also made capital investments and changes to its processing in order to save energy. Heat exchange systems recover hot water streams for reuse in cleaning and boiler systems. Heat generated by drying operations is recovered and reused. Air-to-air heat exchangers, variable frequency devices on motors, and conversion from freon to ammonia refrigeration are all measures that have helped the company achieve significant reductions in its natural gas and electrical consumption and in its CO2 emissions.

Caravan Ingredients (www.caravaningredients.com) has taken similar measures at its production facilities, replacing inefficient systems with newer, more energy-efficient options. Some of the savings have been impressive. According to its website, by replacing inefficient steam jet systems, which consumed high levels of natural gas at its Grandview, MO, distilled monoglyceride plant, Caravan reduced its utilities by 90% and its CO2 emissions by 42%.

On its website, Cargill (www.cargill.com) has outlined very specific goals and measures for reducing its environmental footprint. By 2010, the company hopes to improve its energy efficiency by 20% against its 2001 baseline measure. Already using renewable energy sources, including biogas, landfill gas, and biofuels, the company also hopes to increase its use of renewable energy to 10% of its total energy demand. Cargill is also addressing its greenhouse gas emissions. It is developing a greenhouse gas inventory and setting measures for improvement. To help offset its carbon footprint, the company joined the Chicago Climate Exchange (CCX) in 2007 and its website states that the com-

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pany hopes to achieve a 6% reduction in greenhouse gas emissions in its U.S. operations by 2010.

For the Archer Daniels Midland Company (ADM) (www.admworld.com), water is a critical component of its business model. So along with initiatives to address energy efficiency and greenhouse gases, the company also has programs in place to address water conservation and preservation. The company strives to conserve freshwater wherever possible by utilizing wastewater in its operations. For example, according to ADM’s website, almost one-third of the 14 million gallons of freshwater used at its Decatur, IL, facility is filtered and treated wastewater. Because the company also relies on safe and clean waterways and ports for transporting products in barges and ships, ADM is a sponsor of Living Lands and Waters, a nonprofit that supports the preservation and protection of rivers and watersheds. ADM also organizes and supports employee volunteers for river cleanups and other water restoration projects.

Waste Reduction and Recycling
As reported on www.mckeefoods.com, waste reduction and recycling are key components of McKee Food Corporation’s operational philosophy, “for both economic and ecological reasons.” McKee starts by minimizing the amount of packaging it uses and by purchasing its ingredients in bulk to reduce waste. To expand its paper recycling abilities, McKee built its own recycling center, decreasing its waste by half. In a typical year, it recycles 1,500 tons of cardboard, 180 tons of paper ingredient bags, 120 tons of mixed office paper, and 60 tons of plastic, according to the company’s website. Each year, McKee also recycles more than 200 tons of scrap steel and other metals along with used oil, solvent, wooden pallets, and plastic and metal drums. Even products that don’t meet its quality assurance specifications are recycled rather than thrown away. The company recycles more than 1,500 tons of food scrap annually to a food processor that uses it to produce animal feed. Recycling at McKee extends from the production room to the break room, with more than 2,000 pounds of used soft drink cans going to recycling each year. Money earned from the recycled cans is given to local charities.

Like McKee, the Hershey Company (www.hershey.com) maintains its own recycling center, which recycles materials from its East Coast factories and corporate facilities. Special Environmental Action Teams at the company’s plants identify ways for the company to expand its recycling efforts and reduce its waste. These efforts extend to the company’s offices as well. Usable items from obsolete computers and other electronics are reclaimed and the rest is recycled. Hershey’s website notes that, through a special program, employees recycle items such as printer cartridges and cell phones, which in turn benefit the Children’s Miracle Network, one of Hershey’s philanthropic partners.

The Kellogg Company (www.kellogg-company.com) considers waste control not only part of its overall environmental management program but a key indicator of efficiency. As noted on their website, in 2007, the company reduced both its overall nonfood waste and nonfood waste per metric tonne of food produced. Kellogg is working to achieve a 15–20% reduction in waste, greenhouse gas emissions, and water use by 2015.

Sustainable Packaging
For the Malt-O-Meal Company (www.malt-o-meal.com), streamlined packaging serves a dual purpose, reducing postconsumer waste and providing a key marketing tool for the company. Promoted as “the environmentally friendly choice,” Malt-O-Meal’s bag cereals use 75% less packaging than standard cereal packaging, according to the company’s website. Hershey has several ongoing initiatives designed to increase the sustainability of its packaging. The company is working with vendors who are members of the Recycled Paperboard Alliance to convert items to recycled materials. Hershey’s goal is to use recycled content materials whenever possible as long as they meet quality and safety guidelines and federal regulations governing the use of recycled material in food packaging. Hershey is also committed to redesigning its packaging to reduce waste and increase efficiency. By changing the packaging for its Ice Breakers Mints for example, Hershey’s website notes that it was able to decrease total package weight by 43%, saving 1.8 million pounds of materials and reducing the number of truckload required to transport the product. A change in caps for Hershey’s syrup resulted in 63 fewer truckloads of inbound caps being transported annually and saved 360,000 pounds of materials.

Kellogg has developed a list of environmental principles relating to its packaging as well, including the tracking of environmental impacts associated with package design decisions. Almost all of the company’s cereal cartons are made of 100% recycled fiber, approximately 35%
of which comes from consumer recycled material, according to the company’s website. Kellogg reported that it is currently one of the largest users of recycled paperboard in the United States.

After considerable research and analysis, Kettle Foods (www.kettlefoods.com) decided to eliminate the paper layer in its potato chip bags that are 15 ounces and smaller. As a result, it reduced the material used in its bags by 20%, which is estimated to save 22,000 trees annually and prevent more than 450,000 pounds of packaging from going into landfills each year, according to its website. The company hopes to find recyclable, compostable, or biodegradable materials that meet company specifications and standards so that it can further increase the sustainability of their packaging.

**Sustainable Supply Chain**

McCormick & Company (www.mccormickcorporation.com) sources its spices from around the world and in doing so relies on agricultural suppliers to deliver the highest quality products. To help ensure the continued viability of its product sources, McCormick has a variety of programs designed to promote sustainability. Its Global Sourcing Program works to educate farmers on best practices for growing, storing, and harvesting their products. Similar initiatives are made with McCormick’s vendors. Along its supply chain, McCormick acts as a source of information for eco-friendly processes and practices wherever possible.

Like McCormick, Birds Eye Foods (www.birdseyefoods.com) also relies on its agricultural partners to deliver a high-quality product. The company has similar initiatives with regard to its suppliers, using a team of what it calls “agricultural associates” to assist farmers and suppliers in developing sustainable agriculture practices and environmental programs.

Ingredients supplier Symrise now works alongside vanilla plant farmers from planting to harvesting and processing.

TIC Gums (www.ticgums.com) says it is acutely aware of the need to use natural resources responsibly since many of its products are derived directly from natural resources, such as seeds, seaweed, and trees. Its environmental initiatives have included working directly with suppliers to educate harvesters on sustainable ways to harvest gum without causing permanent damage to trees.

For Florida Crystals Corporation (www.floridacrystals.com), the supply chain is much shorter. They were the first ever to farm and mill certified organic sugar in the United States. The company also reports that growing its sugarcane organically gives them a competitive edge, and furthermore, because it is less processed than refined white sugar, its sugar retains more of the flavor of the original sugarcane juice. The company’s farming and processing practices also minimize its environmental impact and even help the environment.

**The Sum of the Parts**

Many, if not most, of these companies have programs and initiatives that address multiple environmental and sustainability issues beyond those highlighted here. And some, particularly those with smaller scales of production, aspire to infuse an environmental consciousness into everything they do.

Kettle Foods, for example, uses the leftover oil from cooking its potato chips to power several of its company cars. The installation of more than 600 solar panels has allowed the company to generate enough electricity to make 250,000 bags of its chips and reduce the company’s annual CO2 emissions by 65 tons, according to its website. Moreover, by purchasing 8,750,000 kilowatt hours of renewable energy credits annually, it prevents more than 12 million pounds of carbon dioxide pollution, equivalent to taking 1,000 cars off the road or planting 1,600 acres of trees. The company claims that it works to enhance the health and biodiversity of the wetland near its production facility by planting native plants and adding a trail system with interpretive signage to increase awareness and appreciation of wetland habitats.

Similarly, Florida Crystals operates a renewable energy facility—the largest of its kind in North America—that uses its own sugarcane crop and wood waste to produce enough energy to power its operations and tens of thousands of homes, according to its website. This and other measures have earned the company Carbonfund.org’s CarbonFree certification, indicating that the company’s energy-saving measures have counterbalanced the environmental impact of its sugarcane production. In a March 26, 2008, interview with the Palm Beach Post, Luis Fernandez, chief financial officer of Florida Crystals and chair of subsidiary Domino Foods Inc., said, “I think there will be more and more green products. I think labeling and third-party verification will become more common” (3).

**References**


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