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Persistent Herbicide Poses Potential Problems

Ominous label restrictions on a post-emergent broadleaf herbicide made by Wilmington, Delaware-based Dupont under the brand Imprelis have caused concern among composters as well as landscapers and homeowners who make a regular practice of recycling their green waste. The label states: “Do not use grass clippings from treated

areas for mulching or compost, or allow for collection to compost facilities. Grass clippings must either be left on the treated area, or, if allowed by local yard waste regulations, disposed of in the trash. Applicators must give verbal or written notice to property owners/ property managers/residents not to use grass clippings from treated turf for mulch or compost.” Organics recyclers have told BioCycle that they are encouraging their clients who wish to continue to convert their green waste to compost to avoid the product. Look for a full report in June.

“Relish Yo’ Mama” Aims To Preserve More Than Just Produce

A new website featuring food preservation techniques and heritage recipes aims to revive an age-old family tradition — home canning. According to the website’s homepage, Relish Yo’ Mama (www.relishyomama.org) is a place for sharing recipes and remembering the times, people and tastes of our mamas, grandmamas and papas as well as their culinary heritage. “Preserving the tastes and goodness of local harvests can go a lot further when the garden bounty becomes the ingredients for relishes, jams, jellies and other culinary delicacies,” says Susan Antler, director of Canada’s Plant a Row - Grow a Row, and executive director of the Compost Council of Canada. Plant a Row - Grow a Row is a nationwide program encouraging gardeners to grow an extra row of veggies to share with those in need. And it’s not just a coincidence that the program’s name, Relish Yo’ Mama, refers both to the family connections as well as the Plant a Row – Grow a Row team’s passion and focus on environmental care and conservation of Mother Earth. Antler adds that most people don’t know the ins-and-outs of canning and so are reluctant to take on this culinary venture. “As well, many of us don’t have the tried-and-true recipes that will make our efforts deliciously successful. We’ve started off with a website and intend to offer workshops throughout the gardening season to nurture the growing interest in canning. ...Stay tuned for added programming as the season unfolds. We are sure that you will relish our culinary journey together.”

Pepsi And Coke Move Toward Plant-Based Packaging

From Michael Jackson’s 1970s moonwalk for Pepsi to the soft drink giant’s more recent race with rival Coke to out shrink each others’ carbon footprint, the two company’s have been at pace vying for the consuming public’s favor for more than three decades. Pepsi may have just pulled

into the lead with its recently announced 100-percent plant-based fully recyclable bottle. Scheduled for pilot testing in 2012, followed by a full-scale rollout if successful, the new bottle is made predominantly of switch grass, pine bark and corn husks and will ultimately include orange and potato peels, oat hulls and other agricultural by-products from PepsiCo's multiple food businesses. With the company holding the specific process close to the vest, a press release revealed only that it involved a combination of chemical and biological processes creating a molecular structure identical to polyethylene terephthalate (PET).

In 2009, Coke introduced its PlantBottle made up of 30 percent Brazilian sugarcane and molasses and 70 percent petroleum. Rolling that technology out to nine products helped reduce the company's carbon footprint by nearly 20 percent. Both the PlantBottle and Pepsi's 100-percent plant-based bottle are fully recyclable. Neither are biodegradable/ compostable as some published reports claimed following Pepsi's announcement in March. Nonetheless, Natural Resources Defense Council Senior Scientist Allen Hershkowitz called Pepsi's breakthrough "the beginning of the end of petroleum-based plastics," adding "when you have a company of this size making a commitment to plant-based plastic, the market is going to respond."

Call For A "Blue Revolution"

The Worldwatch Institute's "State of the World 2011: Innovations that Nourish the Planet" includes a chapter entitled "More Crop Per Drop," which calls for a new "Blue Revolution" in contrast to the 1960s Green Revolution that nearly tripled worldwide grain production and also doubled arable land under irrigation, demanding vast quantities of water. According to State of the World 2011, 70 percent of the world's fresh water is used for irrigation. Yet 60 percent of the world's hungry live in South Asia and sub-Saharan Africa, where just 4 percent of agricultural lands receive some form of irrigation (as opposed to a worldwide average of 18 percent). "But there is great potential to expand irrigation with small-scale solutions," says Danielle Nierenberg, codirector of Worldwatch Institute's Nourishing the Planet project.

While agricultural investment in developing countries and elsewhere has tended to focus on increasing yields of commodity crops, the report states, there has been scant research and investment into ways to make more efficient use of scarce water resources. "As global food markets become increasingly volatile, efficient water management on farmers' fields can help strengthen food self-sufficiency in the long-term," says Nierenberg. Over the past 15 months, the Nourishing the Planet team has been researching affordable innovations in 25 countries in sub-Saharan Africa in cooperation with more than 250 local farmers' groups, NGOs, scientists and government agencies. Three recommended models that can be replicated and scaled up around the world include the use of human-powered pumps to obtain water, low-cost micro(drip)-irrigation to stretch meager water supplies and more efficient use of rainfall through sustainable farming techniques such as mulching, minimal tillage and returning organic matter to the soil (95 percent of cropland depends on rain in sub-Saharan Africa).

Saginaw Study Explores Corn Waste To Energy

A recent study at Saginaw Valley State University in University Center, Michigan, explored the possibility of turning corn stover (chopped up leaves, stalks and cobs) into powder and then pressing it into pellets and briquettes through thermal densification for use as biomass fuel. "The study was driven by the Michigan Corn Growers Association," explains co-investigator and materials science professor Chris Schilling, adding that the group approached him for ideas about how to stimulate the economy in an area hard hit by the collapse of the auto industry. "In

Michigan, manufacturing used to be the No. 1 business and agriculture was No. 2. Now, agriculture is becoming No. 1.”

According to the study, coauthored by graduate students Jacob Pederson and Gretchen Roekle, Michigan alone produced 4.3 billion pounds of waste cob material in 2009. “The project revolves around both monetizing waste and figuring out how America can produce enough biomass to significantly reduce its dependence on foreign oil,” says Schilling. “Corn stover is the lowest hanging fruit.” Besides finding a process for pellet and briquette production that will offer a reasonable net energy gain, other challenges involve the logistics of collecting and shipping the raw material to regional biorefineries as well as being careful not to remove too much organic matter from the biological system. “It’s a question of how much can you strip from the fields and not reduce soil carbon for the next growing season, cause erosion problems and so on,” he explains. During harvest, a combine chops off the entire corn plant about 6 inches above the ground. Inside the combine, kernels are stripped off of cobs; the cobs are chopped up with the rest of the stover (leaves and stalks), and the mixed material is strewn out of the rear of the combine as it drives through the fields.

“It turns out companies such as Vermeer are testing equipment to collect stover during combining,” says Schilling. “Eventually, bioenergy markets will make it profitable to collect stover in this manner so it can be shipped to a local power plant. From the standpoint of providing this nation with a clean power plant fuel, the sheer quantity of cropland stover is simply too great to ignore.” The thermal densification process produces a biodegradable product that can be used for disposable packaging, furniture and other applications in addition to bioenergy feedstocks. “It’s a scientific area that’s not well developed,” he adds. “It’s all about finding the right particle size, pressure and temperature.”

Students Recover 91 Million Pounds Of Recyclables

RecycleMania season at 630 colleges and universities across the country this spring netted 91 million pounds of recyclables and organic materials, thus preventing the release of 270 metric tons of carbon dioxide equivalent. That’s equal to the annual emissions of more than 52.8 million cars. The eight-week challenge to increase on-campus recycling rates, which took place from February 6 to April 2 this year, is in its 11th season.

The competition includes eight categories. The colleges and universities that took home top prizes in the three primary categories are: Grand Champion (determined by the percentage of overall waste recycled): California State University-San Marcos, with a 79.69 percent recycling rate; Per Capita Classic (determined by total pounds of recyclables collected per person): Union College, Schenectady, New York, with 55.69 pounds collected per person, and; Waste Minimization (determined by the lowest overall amount of waste recyclables and trash per person): North Lake College, Irving, Texas, with just 3.07 pounds of waste collected per person. “One unique aspect of RecycleMania is that everyone is a competitor,” notes Bill Rudy, recycling coordinator at Brigham Young University and chair of the RecycleMania Steering Committee. “No one sits on the sidelines. When a student recycles they add to their score, and if they throw something away it hurts the school’s ranking. With the whole campus in the game, the competitive spirit spreads and recycling increases.” Program management is provided by Keep America Beautiful with additional program support from the US EPA’s WasteWise program and the College and University Recycling Coalition (CURC). Find out more at recyclemaniacs.org.