

Responsible Consumerism:

A SPECIAL REPORT PRODUCED
FOR MACLEAN'S BY
GREEN LIVING ENTERPRISES



CONTENTS

Page 1
Greening the Way
These 10 consumer product companies and retailers are leading the way in environmental sustainability

Page 7
The Future is Green
Eco-friendly trends in consumer products

Page 13
Green Gift Giving

Page 15
Taking a Closer Look:
Evaluating Company CSR Achievements and Plans

Page 16
What's the Water Footprint of those Manolos?

greenliving

Green Living has been helping both consumers and businesses navigate environmental and social responsibility for over 10 years. Producer of the Green Living Show and greenlivingonline.com, Green Living also provides marketing and communications services to responsible businesses.

GREENING THE WAY

These 10 consumer product companies and retailers are leading the way in environmental sustainability

A wonderful convergence of forces is creating a consumer mindset in which corporate sustainability will soon become, if it isn't already, synonymous with innovation—especially green innovation. The driving forces? A combination of the recent recession, consumers' increasing green expectations, and a networked culture thanks to social media. Companies now face greater accountability because the entire world can witness any action—or inaction— instantaneously.

RADICAL TRANSPARENCY

"The growing culture of corporate sustainability has given permission to large organizations, who were previously very closed and insular, to be incredibly transparent in their aspirations to move forward in sustainability," points out Valerie Casey, founder of The Designers Accord, a network of global designers dedicated to sustainable design. This wave of "radical transparency" ultimately enables industry to freely benchmark green progress, which reveals opportunities and, most importantly, pushes companies towards greater goals.

"Companies see consumers responding to their green actions and offerings, which encourages further corporate greening," explains Tom Ewart, managing director of The Network for Business Sustainability at the Richard Ivey School of Business at The University of Western Ontario in London, Ont.

SPOTLIGHTING CONSUMER PRODUCT COMPANIES

In honour of this advancement towards green innovation and sustainability, we're spotlighting consumer product companies, and a few of their retailers, that are taking on some neat green initiatives (you can read about other big players like P&G in our story on international green trends in consumer products). Our Leaders List was compiled based on public information, previously published rankings (such as *Maclean's*' Top 50 Socially Responsible Corporations 2010, and *Newsweek's* 2010 Green Rankings) and insights and analysis from leading experts at non-governmental organizations, academics, corporate social responsibility analysts, and sustainability experts. →

Responsible Consumerism:

A SPECIAL REPORT PRODUCED FOR MACLEAN'S BY GREEN LIVING ENTERPRISES

10 companies leading the way in sustainability



**COCA-COLA
CANADA:
PROTECTING
WATERSHEDS**

Toronto, Ont.

Coca-Cola Canada is in the early stages of embracing sustainability, but the company is highly admired among experts in the field for how dedicated it is to the task. Among its big green priorities are reducing plant water usage (10 per cent this year); protecting watersheds and creating a national freshwater strategy for Canada through a partnership with WWF-Canada; and aligning its entire system with stringent wastewater treatment standards, which requires returning all water used in manufacturing to the environment at a level that supports aquatic life by this year.

BRAGGING RIGHTS:

Saving water In 2009, Coca-Cola Bottling Company in Canada avoided the use of 2,500 metric tons of packaging, including reducing the weight of its Dasani PET bottles by 30 per cent, and using a 24-per-cent-lighter twist-off closure on PET bottles and a lighter fibreboard for its Minute Maid containers. Also, in 2008, Coca-Cola added heavy-duty hybrid electric delivery trucks to its fleet, the first company in Canada to do so. These trucks reduce fuel consumption and carbon emissions by about a third compared to regular trucks.

IN THE WORKS: Recycling and reducing its carbon footprint

Spokesperson David Moran says that the company's long-term goals are to "dramatically increase" the number of containers recycled; grow business but not its carbon footprint; and balance water use with the watershed preservation. "We have the vision [and] commitment, and our people are passionate about achieving our goal. However, we will need technology [and] consumers' and our outside partners' help in achieving these goals."



**LOBLAW
COMPANIES LTD.:
DELIVERING ON
SUSTAINABILITY
PROMISES**

Brampton, Ont.

"In terms of their peer group, Loblaw is right up there when it comes to green initiatives," says Jennifer Penikett, sustainability analyst at the Toronto office of Jantzi-Sustainalytics, a global sustainability research and analysis firm. In 2010, Canada's largest retailer made it onto *Maclean's*' Top 50 Socially Responsible Corporations (and came in at No. 5 on Corporate Knights' Best 50 Corporate Citizens in Canada), in part because it has delivered on many of its sustainability promises, including waste reduction and creating a smaller carbon footprint. Loblaw is also a leader in educating consumers and engaging suppliers in green efforts. For example, in both 2010 and 2011, Loblaw contributed \$100,000

(part corporate donation, part proceeds from its national plastic shopping bag reduction program) toward engaging elementary and secondary school students across Canada in green initiatives through WWF-Canada's Green Community School Grants Program.

BRAGGING RIGHTS: Solar power pilot project

The grocer is testing a solar-panel pilot project at four stores. As part of the Feed-in Tariff Program of Ontario's Green Energy Act, energy generated will power nearby communities.

IN THE WORKS: Reducing waste and promoting sustainable seafood

"We continue to work on areas

that have the greatest impact, which includes reducing energy consumption, waste and packaging along with sourcing our products responsibly," says Bob Chant, vice-president, corporate affairs, noting that the company is retrofitting 80 stores for better energy efficiency.

In terms of sustainable food sourcing, Loblaw—the country's largest buyer and seller of seafood—has pledged to obtain all seafood, including canned, frozen, fresh, wild and farmed products for private-label and national brands, from sustainable suppliers by the end of 2013. Chant says it's an aggressive target, but "there is still much work to be done in this area."

Responsible Consumerism:

A SPECIAL REPORT PRODUCED FOR MACLEAN'S BY GREEN LIVING ENTERPRISES

10 companies leading the way in sustainability



**MOUNTAIN
EQUIPMENT CO-OP:
SUSTAINABLE
PRODUCT LIFE
CYCLES**

Vancouver, B.C.

Mountain Equipment Co-op (MEC), a member-owned retail co-operative, ranked No. 1 on this year's *Corporate Knights* Best 50 Corporate Citizens in Canada list. MEC's sustainability record is incredible, and we know that because it is ultra-transparent (it's been publishing the MEC Accountability Report since 2007). Just one of many MEC eco-initiatives is its goal to make 70 per cent of its directly sourced textile mills bluesign partners by 2012 (bluesign is an independent Swiss-based organization that helps reduce corporate eco-footprints in the textile industry). By 2009, six of its 30 mills had implemented the bluesign standard. Canada's largest outdoor specialty retailer also has several programs to

reduce the eco-footprint of its MEC brand products over their life cycle.

BRAGGING RIGHTS: Measuring product footprints MEC is working through the Outdoor Industry Association on the development of Eco Index, an industry standard for product footprinting that will become the outdoor industry's first standardized environmental assessment tool (a beta version is already operating). (In 2008, MEC joined Nike, Patagonia and The Timberland Company to publish a list of its contract factories.)

IN THE WORKS: More sustainable products MEC is exploring ways to further

improve production practices. "Our biggest wins are in areas that we can directly influence—green buildings, materials and energy management, and product transportation. Making measurable gains in our supply chain and sourcing is our biggest challenge," says Esther Speck, director, sustainability and community. "We find that progress is most likely through collaboration along the value chain. For example, creating demand for and purchasing bluesign-certified materials, working with the Outdoor Industry Association in developing a beta Eco-Index, or participating on the newly formed Sustainable Apparel Coalition."



**P&G: SHRINKING
ECO-FOOTPRINTS**

Toronto, Ont.

Since 2007, when the company established five-year goals towards increasing sustainability, P&G has reduced its plants' water and energy usage by about 15 per cent each, carbon dioxide emissions by 11 per cent, and solid waste by 50 per cent.

BRAGGING RIGHTS: Improving vendors' sustainability Since last year, P&G has been using a sustainability scorecard with its

vendors to encourage continual improvement and identify preferred companies.

IN THE WORKS: Less packaging, more renewable materials By 2020, the company aims to reduce overall packaging by 20 per cent, make cold water the choice in 70 per cent of its customers' laundry loads, replace one-quarter of oil-based materials with renewable ones,

and cut energy use at its plants by a third. The company's long-term goals include powering plants only with renewable energy; using only renewable or recycled material for products and packaging; and having zero consumer and manufacturing waste go to landfills.

Responsible Consumerism:

A SPECIAL REPORT PRODUCED FOR MACLEAN'S BY GREEN LIVING ENTERPRISES

10 companies leading the way in sustainability



**PINERIDGE GROUP:
REDUCING PACKAGING,
BOOSTING
BIODEGRADABLES**

Brampton, Ont.

We like Pineridge Group—maker of Gourmet Baker, Oakrun Farm Bakery and Lavo (Quebec-based laundry and household cleaning products)—because it's a smaller food product company that tackled sustainability before many of its larger peers. Way back in 2005, the company did a Life Cycle Analysis that covered its supply chains, manufacturing and product usage to develop a sustainability strategy, and it has also collaborated with CIRAIG. Pineridge's focus is on energy efficiency and packaging reduction, and in

that vein, Lavo's La Parisienne 2X concentrated laundry detergents (concentrated formulas reduce product volume by 50 per cent) are fully biodegradable.

BRAGGING RIGHTS:

Reducing water and chemical use At Lavo plant level, the company has reduced water usage by 30 per cent by compacting its detergent to 2X, and eliminated all volatile chemical presence in the air as well as any emission of harmful chemicals.

IN THE WORKS: Energy conservation Pineridge has made gains quickly in areas over which it has greater control, such as energy conservation within its plants. "[An area] where we've progressed slower is collaborating with various third parties to make changes in their operations in concert with those that we make internally; for example, the distribution chain," says Dominic D'Amours, director of sustainable development.



**RONA:
A LIFE CYCLE
APPROACH**

Boucherville, Que.

Canada's largest retailer of hardware, renovation and gardening products is no slacker in the greening up department. "RONA is particularly interesting because they've taken a 'life cycle approach' to sustainable development," says Ewart. The company has paired up with academia, specifically the International Chair in Life Cycle Assessment at the École Polytechnique de Montréal (CIRAIG), to ensure its new RONA ECO products are sustainable over their life cycle, which includes natural resources acquisition, manufacturing, packaging and transport, use, and end of life. RONA also subjects other products in its stores to the

same life cycle methodology, applying an ECO Responsible logo to those that pass.

**BRAGGING RIGHTS:
EcoLeaders and waste diversion**

RONA has announced that it is rolling out a national version of a pilot program, conducted at 28 RONA stores in Ontario, that appoints EcoLeaders (staff members) to lead efforts that reduce each store's environmental footprint, namely in energy use and waste. On that count: in 2009, RONA diverted close to 4,500 tons of cardboard and plastic from landfills across Canada (and it just expanded a zero-waste initiative to all 28 Ontario stores).

IN THE WORKS: More eco-friendly products RONA offers more than 450 RONA ECO products, plus more than 1,700 other eco-responsible products from other brands. "Our first challenge with regard to sustainable development is to always follow rigorous criteria and methodology for the development of genuinely eco-responsible products, policies and initiatives," says Émilie Verret, communications coordinator. "Our second challenge is to effectively communicate to consumers the benefits of these products and policies."

Responsible Consumerism:

A SPECIAL REPORT PRODUCED FOR MACLEAN'S BY GREEN LIVING ENTERPRISES

10 companies leading the way in sustainability



**SC JOHNSON:
GREEN CHEMISTRY
LEADER**

Racine, Wis.;
Brantford, Ont.

SC Johnson, family-owned maker of household brands including Windex and Mr. Muscle, was high on the list of a number of industry experts for its early dedication to green chemistry and commitment to total transparency.

**BRAGGING RIGHTS:
Reducing VOCs and
greenhouse gases**

Through its Greenlist, an internal process for rating raw materials for environmental

and health impacts (which other companies can license), SC Johnson has removed more than 61 million pounds of volatile organic compounds (VOCs) from the environmental footprint of the company's products—roughly the same amount produced by 656,000 cars in a year. It also met its goals for reducing greenhouse gas emissions sooner than planned, cutting them by 32 per cent at its factories worldwide since 2007.

**IN THE WORKS:
Transparency on
ingredients**

SC Johnson has taken a voluntary industry initiative to reveal product ingredients one step further by creating the consumer-friendly website whatsinsidescjohnson.com. The company has given itself a deadline of 2012 to disclose every ingredient in all of its products, including dyes and fragrances.



**SEARS CANADA:
HELPING
CONSUMERS
SHOP GREEN**

Toronto, Ont.

This department store chain ranked 19th on Corporate Knights' Best 50 Corporate Citizens list—significant considering none of its peers were on the list.

The Canadian arm's "Live Green" plan includes reducing the carbon footprint at its 450 stores and 1,800 catalogue merchandise pickup locations, but where it really stands out is empowering consumers to shop green (and not just because it carries loads of Energy Star-qualified products and it is Natural Resources Canada's 2010 Energy Star Retailer of the Year for the

third consecutive year). Last year in B.C., it launched a Cost and Carbon Savings Calculator, which includes in-store touchscreen kiosks where customers input information about their existing appliances and get an estimate of their dollar savings and carbon dioxide savings.

**BRAGGING RIGHTS:
Reducing its carbon
footprint**

Since 2008, Sears Canada has doubled its range of eco-products. It is also on track to reduce its carbon footprint by 20 per cent (compared to 2007) by 2013. The company is also a major sponsor for

initiatives such as WWF's Earth Hour and Scoutrees, Scouts Canada's tree-planting program.

**IN THE WORKS:
Promoting eco-friendly
products**

"There are a few areas where we are aspiring to do more," says spokesperson Vincent Power, such as giving Sears' eco-products more prominence in stores and on its website; raising consumer awareness about the benefits of replacing aging appliances; and accelerating its plan to reduce the company's carbon footprint.

Responsible Consumerism:

A SPECIAL REPORT PRODUCED FOR MACLEAN'S BY GREEN LIVING ENTERPRISES

10 companies leading the way in sustainability



UNILEVER: HIGH STANDARDS OF CORPORATE SUSTAINABILITY

The Netherlands;
Toronto, Ont.

Globally, Unilever ranked No. 1 on *Newsweek's* Green Rankings in its sector, Food and Beverage, last year. The maker of brands including Beceel, Bertolli and Lipton was also cited repeatedly among our experts for its high standards of corporate sustainability. The company uses a special tool that embeds sustainability in the day-to-day activities of brand management and research teams to ensure that social, economic and environmental impacts are assessed over products' life cycles. Unilever also screens its own suppliers to ensure internal environmental

standards are met. Early on, the consumer products giant helped found the Marine Stewardship Council, and the Roundtable on Sustainable Palm Oil (both in collaboration with WWF), and supported fair trade and nutritional labelling.

BRAGGING RIGHTS:

Reducing water and energy use A poster child for Unilever Canada's efforts is its Beceel manufacturing plant in Rexdale, Ont.: its water use has dropped 48 per cent since 1999. Other conservation initiatives have reduced the plant's annual production of greenhouse gases

by 23,000 tons, its electricity use by 23 per cent, and its natural gas consumption by 46 per cent.

IN THE WORKS:

Decreasing greenhouse gases Globally, Unilever has committed to reducing greenhouse gas emissions from manufacturing operations by half by 2020. Just one example of action: it is working with Greenpeace to replace more than two million point-of-sale ice cream freeze cabinets worldwide with HFC-free refrigeration units.



WALMART CANADA: ONE OF CANADA'S GREENEST RETAILERS

Mississauga, Ont.

The world's largest retailer is also one of the greenest in Canada. "Our most significant progress has been in driving waste diversion and energy efficiency at our stores," says Andrew Pelletier, vice-president of corporate affairs and sustainability. A 2009 deal with Bullfrog Power has made Walmart the largest buyer of renewable energy in Canada. Some stores are testing wind turbines, geothermal energy and solar panels, and new locations are 35 per cent more efficient than ones built in 2006. By 2015, Walmart aims to use only renewable energy and divert 90 per cent of company waste from landfills.

The company has also launched sustainable agriculture, seafood and apparel programs; for example, in November, Walmart announced plans to buy 30 per cent of its fresh produce locally each year (more when supply is available), which lowers its carbon footprint.

BRAGGING RIGHTS:

Embracing green technology Walmart recently opened a sustainable food distribution centre, estimated to be 60 per cent more efficient than its other refrigerated facilities, in Balzac, Alta. Eco-friendly features include two wind turbines, a solar array

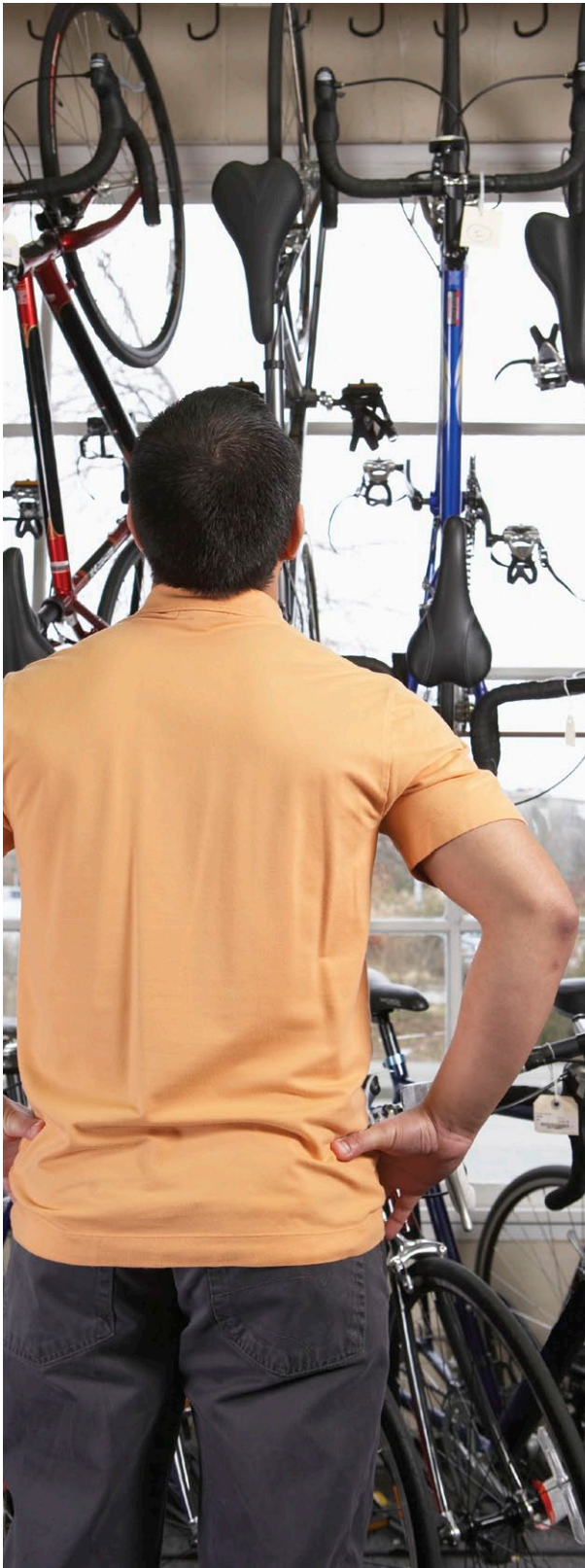
and LED lighting. Walmart also launched ShareGreen.ca, which features case studies of sustainability practices at large companies such as PepsiCo, HP and Canon.

IN THE WORKS: More choices in green products

For the past year, the company's sustainability product index has identified 1,000 pre-certified green products to customers. Pelletier says, "We still see a lot of room to grow sustainable products [to make them] affordable for our customers." ●

Responsible Consumerism:

A SPECIAL REPORT PRODUCED FOR MACLEAN'S BY GREEN LIVING ENTERPRISES



“ Consumers want greener stuff, but studies show time and again that we aren't willing to pay more or compromise convenience to get it. ”

THE FUTURE IS GREEN

Eco-friendly trends in consumer products

Even the most eco-savvy among us are delighted by a brand-new shiny bike or car or espresso machine, and when you think about it, why shouldn't we be? The act of living requires that every one of us uses things; guilt is simply a by-product of the poor design and processes of the things we consume.

But guilt-reduction help is on the horizon. Consumer product designers and manufacturers are optimistic about a not-too-distant future when conscientious consumption need not be about “less,” but the next best thing that is truly good for the planet. And they have good reason to be optimistic: exciting green trends in consumer

product development are shrinking the water and carbon production footprints of many things we love to buy.

PAYING ATTENTION TO PRODUCT LIFE CYCLES

A few years ago, consumer goods companies paid lip service to the buzzword “green.” “It wasn't until the recession burst everyone's bubble that they started to get serious about looking deeper at the complete life cycles of their products and where they can make green improvements,” says Valerie Casey, a product designer and founder of The Designers Accord, a global coalition of designers, educators

Responsible Consumerism:

A SPECIAL REPORT PRODUCED FOR MACLEAN'S BY GREEN LIVING ENTERPRISES

The future is green

and business leaders committed to sustainable design. She adds that the pressure exerted by social media and consumer demand for greater transparency and corporate responsibility have also had an impact.

Manufacturers have a long way to go to reach the ideal: a business model that is 100-per-cent rooted in sustainability. In fact, consumer product manufacturers are a little behind other industries in green product innovation, according to Jacquelyn Ottman, a New York-based green marketing expert. "For example, the appliance and office equipment industry has had the benefit of the Energy Star label, and [builders have had] the benefit of LEED certification from the USGBC [U.S. Green Building Council]."

SHARING PRODUCT INNOVATIONS

But with the recent advent of groups like San Francisco-based Cradle to Cradle Products Innovation Institute (C2CPII)—a forum for competing manufacturers to share in mutually beneficial sustainable product innovations—there is real possibility. "The idea is that product manufacturers agree not to compete on the cost of air, land and water at the expense of our

human and environmental health," says Beth Rattner, C2CPII vice-president. She points to shoe giants Timberland, Adidas, Clarks and Nike, which agreed on a moratorium on sourcing leather from the Amazon rainforest, as a recent example.

CONSUMERS PLAY A ROLE TOO

The catch is us, actually. We want greener stuff, but studies show time and again that we aren't willing to pay more or compromise convenience to get it. In other words, the progress of consumer product business sustainability hinges on our preferences, which may occasionally halt innovation. Case in point: last fall PepsiCo pulled its 100-per-cent compostable Sun Chips bag from U.S. shelves, just 18 months after launch. Why? Apparently, the bag's loud crinkle factor outweighed the benefit to the planet. There's even a Facebook page that goes by the name "Sorry But I Can't Hear You Over This Sun Chips Bag," with over 50,000 members.



TREND #1: Water-Saving Solutions

Water conservation is a popular subject these days, and marketers haven't missed a beat. Take bathroom tissue manufacturer Kimberly-Clark: it gets top marks for thinking outside the roll and creating the Smart Flush bag, which sits in the toilet tank and saves the average family up to 2,000 gallons of water a year. (Smart Flush was distributed free with the purchase of Scott Naturals bathroom tissue in the U.S. in the fall of 2010.)

Ottman says we're starting to see incumbents take up truly innovative eco-initiatives because green upstarts are beginning to steal too much market share. This is especially true in the detergent category. Philadelphia-based Dropps,

which developed water-saving concentrated pouches of phosphate-, chlorine- and NPE-free detergent in 2005, was just picked up by Target.

SMALLER WATER FOOTPRINTS

With prescient timing, soap behemoth P&G began converting its liquid detergents to 2X concentrated versions in 2007, and also introduced concentrated powder detergents in February 2011. These products not only have a smaller water footprint but offer energy and waste savings because they require less packaging, which means we can say bye-bye to those giant plastic jugs.



WATER-SAVING PLANS

PepsiCo in the United Kingdom has ambitious water-saving plans for the manufacture of its potato chips. Within the next 10 years, it plans to move its four chip factories off the key water mains and run them on water extracted from potatoes. (Potatoes are 80-per-cent water, most of which is removed before deep-frying.)



STEWARDSHIP INDEX

The agricultural supply chain could finally be on its way to a much-needed sustainability overhaul. A new Stewardship Index for Specialty Crops in the U.S. represents a milestone in industry sharing data with the goal of developing metrics for measurable sustainability outcomes in the growing of food.

Responsible Consumerism:

A SPECIAL REPORT PRODUCED FOR MACLEAN'S BY GREEN LIVING ENTERPRISES

The future is green



TREND #2: Companies Pressuring Suppliers

Many larger companies making a green shift are exerting pressure on their suppliers to follow suit. For example, green demands by major retailer Walmart has its 100,000-plus suppliers providing information on energy, waste, water and other social and environmental impacts, regardless of where they sit in the supply chain. Other companies are seeking to address these issues right at the source of raw material production. "We're seeing a fair amount of innovation from consumer product companies as they grapple with carbon content. And they have discovered that looking at changing the practices of growers, and not so much their own product formulations, is key," says Ash Seha, managing director of The G2 Group, a Toronto-based sustainability consultant to consumer goods companies.

REDUCING CARBON EMISSIONS

For example, when PepsiCo found out that the largest source of carbon emissions (35 per cent) from the production of its Tropicana orange juice was fertilizer, it began testing reduced-carbon fertilizers with one of its Florida growers. The company has also rolled out i-crop, web-based software that helps its farmers (beginning in Europe in 2011) manage water use.

Cereal, makeup and coffee beans have a greener future too. General Mills, L'Oréal and Nestlé, among others, are making pledges to source ingredients (such as palm oil and coffee beans) through environmentally and socially responsible means, although it remains to be seen how supply-chain issues will be resolved.

SOURCING LOCALLY

Sourcing locally, which reduces the cost of transportation, is another growing trend. Ben and Jerry's has led the way since 2003 with the Dairy Stewardship Alliance, a collaboration with the University of Vermont's Center for Sustainable Agriculture, St. Albans Cooperative Creamery and the State of Vermont Agency of Agriculture (and one in the Netherlands, where ice cream is made for the European market).

SUSTAINABLE FARMING

According to Seha, the promotion of sustainable farming practices by consumer goods manufacturers could have major social implications for dwindling food supplies, not to mention environmental benefits with potential carbon and water savings on the front end of the supply chain down the road.

Grocery retailers have been sourcing locally for many years, as Canada produces a wide range of meats, dairy products and fresh produce, but recently companies have responded to consumer demand to communicate more consistently about how much and where they source from. Sobey's, for example, shares details about where it gets produce and meat on its website.



REUSABLE CLEANING CONTAINERS

Keep your eyes peeled for reusable cleaning containers, a trend that we're just starting to see, according to David Browne, a senior analyst with Chicago-based market research firm Mintel. The Santa Monica cleaning company Replenish recently debuted its concentrated household cleaners in the U.S., sold with an empty reusable spray bottle (the cleaner pod screws into the bottom) with a life span of at least three years. Having consumers mix the product at home reduces plastic and oil usage and carbon dioxide emissions by 90 per cent compared to other cleaners over a year (shipping empty bottles makes trucks lighter, for example).

Responsible Consumerism:

A SPECIAL REPORT PRODUCED FOR MACLEAN'S BY GREEN LIVING ENTERPRISES

The future is green



TREND #3:

Better, Renewable Packaging

Polyethylene plastic made with non-renewable petroleum is the most common plastic in consumer goods packaging (and it is not technically biodegradable). About 70 million tons are produced every year, with approximately six kilograms of carbon dioxide generated per kilogram, and demand is growing. “While more people are becoming aware of the problems and taking active measures to cut down their use (and demand) of plastics, I believe that our overall consumption of plastics is still growing,” says Jennifer Wright, founder of Green Shift, a green business consultancy in Toronto. The good news is that bioplastics—derived from renewable sources such as vegetable oil—are making inroads. As people learn about the alternatives (and the price of oil goes up), “there is good reason to believe that petroleum plastics will start to decline,” says Wright.

SWITCHING TO BIOPLASTICS

Bioplastics aren't yet widespread enough to have a significant impact, but P&G could help speed up change among packaged goods companies with its plans to switch some of the polyethylene packaging of its Pantene Pro-V, Cover Girl and Max Factor brands to a sugar cane-derived plastic (fully recyclable, with a smaller carbon footprint) this year.

RECYCLABLE PET PLASTIC

In 2009, Coca-Cola introduced a new PET (a form of polyethylene) plastic bottle made partially from natural plant sugars. The bottles are fully recyclable and have a smaller carbon footprint. (In 2010, Coca-Cola had 2.5 billion PlantBottles in the marketplace—it hopes to eventually make them 100-per-cent plant-based.)

REDUCING PACKAGING

For some products, simply cutting back on the amount of plastic is possible: in 2009 PepsiCo started using 50-per-cent less plastic in its Aquafina water bottles, a change estimated to save up to 75 million pounds of plastic each year.

Dell is also looking to plants—bamboo, specifically—to help in its package-reduction plan, announced in 2008 (it's aiming to shrink

packaging volume by 10 per cent, or roughly 20 million pounds). In the U.S., it now ships several computer models padded with bamboo cushioning, sourced using Forest Stewardship Council principles.

REMOVING BISPHENOL A (BPA)

Of course, one of the biggest pushes in packaging is to make it safer for human health, in particular by removing bisphenol A (BPA), a chemical that has been linked to reproductive issues, among other health hazards. It is found in nearly every canned food and beverage product on the market. (Canada was one of the first countries to ban BPA from baby bottles, and recently declared it a toxic substance.)

A 2010 report on safer packaging, published by Green Century and As You Sow, shows that a number of companies are pro-actively exploring substitutes and phasing out BPA. The top-ranked companies include ConAgra (makers of Chef Boyardee and Hunt's) and H.J. Heinz.

Overall, there's plenty of room for green innovation on the packaging side. “Manufacturers have had the knowledge for many years, but they lacked the initiative and tended to prefer to stay with the status quo,” says Wright. “Ultimately, it is when one company makes an improvement and others lose market share that manufacturers take initiative.”

REPLACING PVC AND HARD PLASTICS

A few packaging companies in the U.S. are working on promising alternatives to the hard (and mighty frustrating) clamshell packaging that use less plastic; replacing polyvinyl chloride (PVC) with more widely recycled plastic; integrating recycled content; and using sustainably sourced paper. However, Wright notes, few manufacturers are focusing on key issues such as reduction. “Most are still pushing items that result in more material use than necessary—whether it be the packaging of the packaging, or the gauge and thickness used. Similarly, most of the manufacturers who are investing in better technologies are still actively pushing some of the worst perpetrators, such as polyvinyl chloride.”



EDIBLE PACKAGING MAY BE THE NEXT BIG THING

Imagine buying a cup of yogurt, eating its contents, and then eating the cup. “That's the new innovation frontier in the trend towards healthier alternatives that are good for the environment,” says Merrill Mascarenhas, managing partner at Arcus Consulting Group, a packaged goods consulting firm in Toronto. While we aren't quite there yet, researchers at the University of Arkansas Division of Agriculture have invented and patented several protein-based films that can be used to protect food (inhibiting the growth of the three major foodborne bacteria) and are 100-per-cent biodegradable—because we eat it.

Responsible Consumerism:

A SPECIAL REPORT PRODUCED FOR MACLEAN'S BY GREEN LIVING ENTERPRISES

The future is green



TREND #4: The Growth of Green Chemistry

In a perfect green world, we could buy furniture and computer equipment that contain no brominated flame retardants (linked to liver toxicity); toys and beauty supplies without phthalates (linked to allergies in young children); and cans without BPA. We could shop with confidence, knowing that everything we buy is safe for our health and our environment. Needless to say, consumer product manufacturers, with the exception of a few leaders, are only just beginning to pay attention to the role of green chemistry. But make no mistake—it will soon be the top priority.

GREEN CHEMISTRY

Green chemistry, a discipline developed by Paul Anastas and John Warner at the Wilmington, Mass.-based Warner Babcock Institute for Green Chemistry, aims to reduce or eliminate the use of hazardous substances in the design and development phase instead of disposing of them after developing the product.

The challenges in achieving green chemistry (or “material health”) are the intricate, messy supply network (one supplier may not even know its recipe for blue dye or be willing to disclose it) and lack of a system of support to streamline chemical hazard assessment and investigate better ones, according to Rattner. “We have thousands of recipes to make plastic, for example, when we need just 10 polymers that enable a clean renewal stream,” she says. “That requires communication and co-operation, which is our hope for the [Cradle to Cradle] institute.”

SAFER CHEMICALS AND PRODUCTS

The work of groups like the University of Massachusetts Green Chemistry and Commerce Council (GC3) (comprising 50 industry, government and non-government organizations working through barriers to improve the design and application of safer chemicals and products) and the California Environmental Protection

Agency’s Green Chemistry Initiative, are steps in the right direction.

Cleaning-product companies are ahead of the curve when it comes to green chemistry: The Clorox Company’s Green Works is now the best-selling brand in natural cleaners since launching in January 2008. SC Johnson began self-designating products with a special label, the Greenlist logo, in 2001. The logo indicates that products contain fewer volatile organic compounds (VOCs) than before, removed with a patented process that rates 95 per cent of raw materials in SC Johnson products (that’s how it reformulated its Pledge Multi Surface cleaner to improve biodegradability and reduce VOCs, and made its fantastik Orange Action cleaner solvent-free).

GREEN DESIGN PRINCIPLES

Also in 2008, Nike developed “Considered Design” principles for reducing waste, eliminating toxic substances and using environmentally preferred materials in the production of its shoes and sportswear.

Office furniture design company Herman Miller is a leader in green chemistry, going to great lengths to ensure the chemicals used in its materials are the safest possible (and that each piece of furniture breaks down into clean, recyclable parts).

REDUCING THE USE OF TOXIC SUBSTANCES

Some electronics manufacturers have made progress in decreasing their use of toxic substances. Apple, though widely criticized, is actually a leader. It has eliminated arsenic, mercury and lead from its displays, and also phased out hexavalent chromium and decabromodiphenyl ether (a brominated flame retardant), both considered hazardous. It has also eliminated its largest applications of PVC, the most environmentally damaging plastic.



TOXIC CHEMICALS

Did you know there are more than 100,000 different toxic chemicals used in production today?



HOW GREEN IS YOUR COMPUTER?

EPEAT is a fast-growing global ranking system for determining how desktop or laptop computers and monitors compare based on environmental attributes. Those brands that meet 23 environmental performance criteria may be registered with EPEAT (epeat.net) in 41 countries worldwide. Currently a total of 600 products have gold status in Canada.

Responsible Consumerism:

A SPECIAL REPORT PRODUCED FOR MACLEAN'S BY GREEN LIVING ENTERPRISES

The future is green



TREND #5: United Green Stands

One of the most exciting developments in the consumer product industry is collaboration on green initiatives. There is a sense that sustainable product innovation issues are far bigger than what one company can solve on its own, says Rattner. If there is to be real progress throughout a product's life cycle, collaboration among producers, brands, retailers, academics and environmental groups is vital. "Companies can still compete on things like design, function and performance. They just can't compete on raw materials." Here are some exciting projects headed in that direction:

GREENER COTTON

The Better Cotton Initiative (BCI, bettercotton.org), a partnership of cotton producers, brands, retailers and environmental groups (including Adidas, The Gap, Levi Strauss and others), is expected to introduce cotton grown by environmentally and socially sound standards for the global market by the end of 2012. The BCI standards call for phasing out pesticides categorized as WHO Class I, ensuring water extraction doesn't have adverse effects on sources (cotton is a major water user), production practices that minimize erosion, and protecting drinking water sources.

SHARING GREEN INTELLECTUAL PROPERTY

Nike, Creative Commons and Best Buy are working on the GreenXchange (greenxchange.cc), a breakthrough collaboration that would

enable companies working on innovation in sustainability to license each other's patented research, across industries. For example, if Nike has mastered the efficiency of air pressure in sneaker design, a company that manufactures tires might benefit in the same way.

ENCOURAGING COMPETITOR TEAMWORK

The Cradle to Cradle Products Innovation Institute (C2CPII, c2ccertified.org), the California non-profit inspired by architect and designer William McDonough and chemist Dr. Michael Braungart, aims to "transform the making and consumption of things into a regenerative force for the planet in order to protect the environment." The institute, using the Cradle to Cradle (C2C) certification protocol, will work with leaders from academia, the environmental NGO community, government and industry to establish a rating system for evaluating the sustainability of consumer products. (The five C2C standards are: safe and appropriately sourced materials; materials that can be reused; renewable energy; efficient clean water use; and social fairness.) After the institute has rated a product, it will work with the company to voluntarily share information about the chemistry of its materials so that others can benefit. This could lead to real progress and a future where shopping is no longer a trade-off between our natural appetite for consumption and the greater good of the planet. ●



E-WASTE RANKINGS

Most computer, television, printer and game console companies should boost their efforts to take back and recycle their old products, according to e-waste rankings from the Electronics TakeBack Coalition. Dell and Samsung scored highest with a grade of "B," and Asus earned a "B-." Ask retailers or your municipal government how to recycle old electronics.



RECYCLING AT THE BEER STORE

Ontario's The Beer Store, which is funded by the province's brewers and acts as the alcohol sales and container recycling system, collected 2.1 billion bottles, kegs and cans between May 2009 and April 2010, or 520,000 tonnes of materials.

Responsible Consumerism:

A SPECIAL REPORT PRODUCED FOR MACLEAN'S BY GREEN LIVING ENTERPRISES



If you're interested in finding out which environmental charity makes the best use of its donations in Canada, your best bet is to contact Charity Intelligence Canada (it's continually adding new charities, including some of Canada's biggest eco-charities). You can also use the self-reported, unaudited information that organizations provide for the CRA's Charities Directorate (cra-arc.gc.ca/ebci/haip/srch/). Many charities don't publicly post their annual reports, but you can ask to see copies (and if you are choosing a U.S.-based charity, charitynavigator.org provides scores on a variety of environmental charities).



GREEN GIVING GUIDE

If you've been thinking about donating to an environmental charity in lieu of gift-giving, you may need some guiding principles to help you navigate through the over 150,000-plus non-profits and charities in Canada. Shawn Mitchell, former WWF-Canada vice-president and now director of content and communications at CharityVillage, a Toronto-based organization that supports and provides information about non-profits, suggests giving some thought

to the environmental issues that your gift recipient is passionate about; whether an organization's approach aligns with his or her style (activism or advocacy); the kind of information he or she will receive (newsletters, e-mail updates); and how the organization communicates (printed mail can be a turn-off for eco-conscious consumers). Since you're picking for someone else, we've provided a few suggestions to help you get started. →

Responsible Consumerism:

A SPECIAL REPORT PRODUCED FOR MACLEAN'S BY GREEN LIVING ENTERPRISES

Our top picks for green donations

FOR THOSE WHO WANT TO BE IN THE KNOW ENVIRONMENTAL DEFENCE

environmentaldefence.ca

Toronto's Environmental Defence is a super-media-savvy national charity, often quoted in the press for its research and reports on burning eco-topics of the day, such as greenbelts, the tar sands and exposure to toxins. Its six monthly newsletters provide excellent insight into its main environmental agendas, and your gift recipient can follow its government lobbying efforts on Twitter.

FOR KIDS WHO LOVE ANIMALS (AND GAMING) EARTH RANGERS

earthrangers.org

This Woodbridge, Ont.-based organization runs a national fundraising program and live shows (in Ontario schools), and hosts a bunch of online games and programs (at sister site earthrangers.com) that aim to educate kids about protecting habitats and endangered species. Since 2009, Earth Rangers has reached more than 600,000 kids at more than 1,000 schools, and it won the 2010 Green Toronto Award for Environmental Awareness.

FOR KIDS WHO WANT TO BE HANDS-ON THE CHARITREE FOUNDATION

charitree.ca

This Bowen Island, B.C.-based national charity raises money and partners with organizations like the Canadian Camping Association to educate kids about the environment and

empower them to make a difference, specifically through planting trees. Last year, ChariTREE planted more than 10,000 trees across Canada.

FOR THE CHANGE MAKER CANADIAN INSTITUTE FOR ENVIRONMENTAL LAW AND POLICY

cielap.org

Founded in 1970, this non-profit think tank consults experts in legal, academic and corporate circles in order to give our federal, provincial and territorial governments advice on sustainability.

FOR THE ECO-DEFENDER NATURE CONSERVANCY OF CANADA

natureconservancy.ca

This long-standing charity protects areas of biological diversity through a number of channels, including purchase, donations and conservation agreements. Since 1962, it has conserved more than two million acres of ecologically significant land nationwide. Who doesn't have a favourite national park? And for those who are extra-hard to impress: the Nature Conservancy got an "A+" and ranked first among environmental charities for efficiency on *MoneySense's* The Charity 100 list.

FOR THE GREEN FAMILY EVERGREEN

evergreen.ca

Since 1991, this charity has been a leading national funder and facilitator of local, sustainable greening projects in schoolyards, parks and communities across Canada. This year it opened

Evergreen Brick Works, the country's first large-scale environmental community centre, in Toronto. (Its efforts did not go unnoticed: it won the 2010 Green Toronto Award for Leadership.)

FOR THOSE WHO WANT A TANGIBLE GIFT WWF-CANADA

wwf.ca

This popular charity's logo may be the panda, but its aim these days is to protect all life on earth by restoring and protecting ecosystems. It received a decent "B-" on *MoneySense's* The Charity 100 list (73 per cent of WWF-Canada's spending goes to programs), and this year you can adopt a "family" of animals that includes educational materials and a plush animal—ideal for recipients who appreciate a symbolic gesture.

FOR THE NAME-DROPPING DONOR DAVID SUZUKI FOUNDATION

davidsuzuki.org

It's impossible to think of a greener personality than geneticist David Suzuki. His Vancouver, B.C.-based foundation is renowned for its green how-to advice for consumers, as well as for tackling green issues from a science-based, solution-oriented angle. Last fall it launched the Trottier Energy Futures Project, which will source systems that Canada should implement over the next few decades to reduce greenhouse gas emissions by 80 per cent.

FOR THE INTREPID GREENIE ALTERNATIVES JOURNAL

alternativesjournal.ca

Canada's national environmental magazine, published out of the University of Waterloo, is also a national charity. The bimonthly magazine features eco-leaders' thoughtful analysis and debate on Canadian and world environmental issues. A paperless subscription is available, of course. ●

Before donating to an environmental organization, check to make sure it is a registered charity. The sector has a high prevalence of non-profits, for which your donation will not be tax-deductible.

Because the green charity movement has really only gone mainstream in the past 15 years, some non-profits are slow to register, explains Bri Trypuc, client advisor at Charity Intelligence Canada, an organization that analyzes the effectiveness and efficiency of charities in Canada.

Some organizations don't register because the requirements don't fit their mandate. A registered charity in Canada can only dedicate 10 per cent of its budget to advocacy. "For some non-profits that are predominantly advocacy-based, like Greenpeace, it just doesn't make sense," adds Shawn Mitchell, director of content and communications at Charity Village, a Toronto-based organization that supports non-profits.

TAKING A CLOSER LOOK: EVALUATING COMPANY CSR ACHIEVEMENTS AND PLANS

The first stops for information on manufacturers' CSR activities are their own websites. Many devote entire tabs to these topics. For others, it's standard practice to produce CSR/sustainability reports over and above their official annual reports. Are they trying to please the public? To some degree, yes. But there are also enough established standards and reporting rules of thumb that the CSR substance should be clear.

In general, you can expect more information from public companies than private ones. Securities laws require public firms to report any potential exposure to environmental, social and governance risks that could affect results and share value. As such, they're the target of greater scrutiny, monitoring and, at times, direct action, on the part of shareholder and consumer activists, and non-governmental organizations (NGOs).

The latter provide the best non-company sources of CSR information, as follows:

GLOBAL REPORTING INITIATIVE

globalreporting.org

The GRI is the most widely used framework for sustainability reporting. It enables organizations to measure and report their economic, environmental and social performance, and to illustrate the impact of their actions by providing concrete data on non-financial indicators.

JANTZI-SUSTAINALYTICS

[sustainalytics.com/
team-sustainalytics](http://sustainalytics.com/team-sustainalytics)

Canada's most influential third-party CSR research and reporting firm. Much of its data is available only to clients and subscribers. Their investor indices are one way to track financial performance of companies screen for certain environmental, social or governance (ESG) factors. The company was also recognized

as "Best ESG Research House of the Year" at the 2010 TBLI Conference, a major event about sustainability.

CSRWIRE

csrwire.com

This site is what it sounds like—a news wire focusing exclusively on CSR and sustainability news. It receives 250,000 page views per month and sends news alerts to more than 50,000 subscribers.

CORPORATE KNIGHTS

corporateknights.ca

This Toronto-based magazine produces the "Clean Capitalism Report," which analyzes and ranks the CSR performance of the S&P/TSX 60, an index of the 60 largest public companies on the Toronto Stock Exchange. Its focus is integrating sustainable development into corporate best practices and policy.

CARBON DISCLOSURE PROJECT

www.cdproject.net

The CDP is the largest global platform for standardized climate change reporting for companies. More than 3,000 report their greenhouse gas emissions and climate change strategies through the CDP.

CONFERENCE BOARD OF CANADA

[conferenceboard.ca/
documents.aspx?did=3803](http://conferenceboard.ca/documents.aspx?did=3803)

The CDP's Canadian partner is The Conference Board of Canada, whose website has submissions from more than 90 Canadian firms in a free downloadable report. The organization helps executives understand the benefits and limitations of various CSR-related business practices.

BUSINESS AND HUMAN RIGHTS RESOURCE CENTRE

business-humanrights.org

Another clearinghouse contender, with a strong human rights mandate, the centre "tracks the positive and negative impacts of 5,100 companies worldwide." It seeks responses from companies when there are concerns about their conduct, and publicizes each response (or failure to respond).

GREEN AMERICA

greenamerica.org

Green America (formerly Co-op America) is a not-for-profit outfit whose aim is to use economic power of consumers, investors and the markets to advance social justice and environmental sustainability.

ECOLABEL INDEX

ecolabelindex.com

This site makes sense of more than 370 different eco-label certification programs that help companies build credibility around the world. "It's the largest and most comprehensive global directory of information on eco-labels," says spokesperson Trevor Bowden.

CSR HUB

csrhub.com

There is no one definitive clearinghouse of CSR info, but among the contenders, this is one of the most intriguing. As CEO Bahar Gidwani explains, "CSRHUB is the broadest (5,000 companies), most transparent (links to almost 100 CSR sources) and most comprehensive source of information on corporate social responsibility and sustainability."

GOODGUIDE IPHONE APP

goodguide.com/about/mobile

An app for consumers who want help when sifting through products' competing safety, health and sustainability claims while they shop. Download it and scan product barcodes with the iPhone.

CANADIAN BUSINESS FOR SOCIAL RESPONSIBILITY

cbsr.ca

This non-profit organization supports Canadian companies as they pursue goals related to corporate social responsibility. Its advisers and network of partners offer consulting services to help companies facing environmental, social and governance challenges. ●

WHAT'S THE WATER FOOTPRINT OF THOSE MANOLOS?

Now that you've got your head around "carbon footprint" (your measurable impact on climate change), the newest eco-tool to help you shop smarter—"water footprint"—should be a breeze. It's an empirical indicator of how much freshwater is used for drinking, cooking and washing, and also to produce goods we consume, from beef to cotton to shoes.

MEASURING WATER AT EVERY STAGE

Pretty much everything we use requires a certain amount of water, from growing the ingredients to manufacturing and using the products. The thinking goes that if we know it takes 16,000 litres of water (picture that in milk cartons) to produce one kilogram of beef (about two porterhouse steaks), we might be more likely to adopt Meatless Mondays. (That figure includes water used at every stage, from feeding the cow to cooking it.)

"Fresh water is a scarce resource," says Erika Zarate, programme officer at the Water Footprint Network, the Netherlands-based organization that founded the concept. In fact, less than one per cent of the earth's water is available for human use, and that supply remains constant despite population growth. "Good information about the water footprints of communities and businesses will help us to understand how we can achieve a more sustainable and equitable use of freshwater," she adds.



CHECK YOUR TOILET

Older household toilets use up to 20 litres of water per flush, but we only need about six litres.



THE COST OF WATER

In many areas of Canada, we pay less than the actual cost of processing and delivering water. We pay about 30 cents per cubic metre, significantly less than most developed countries including the U.S. (40 to 80 cents); the United Kingdom (\$1.28); and Germany (\$2.16).

HOW THE WATER FOOTPRINT HELPS CHANGE BEHAVIOUR

The water footprint tool may convince you to eat less meat, quit wearing cotton or drink fewer cups of coffee—all goods that require substantial amounts of water to produce. What about those of us who can't or won't make these changes? "The second option is to stick to the same consumption pattern but to select the cotton, beef or coffee that has a relatively low water footprint," says Zarate.

RAISING AWARENESS ABOUT WATER SCARCITY

Of course, that kind of detailed, vital information—for example, whether the cow lived off of rainfall-watered grass (low water footprint) or groundwater-pumped corn feed (high water footprint)—is hard to come by in the grocery store aisles. That's why experts are hoping that the water footprint (check out the calculator at waterfootprint.org) is just the first of many tools that raise awareness of water scarcity.

WATERSENSE LABELS HELP

Rob de Loe, professor and university research chair in water policy and governance at the University of Waterloo, says that Canadians will have noticed the "WaterSense" label on a few water-saving devices, including bathroom sink faucets, showerheads and toilets. WaterSense is a product certification program from the United States Environmental Protection Agency, and manufacturers have been using the label in Canada since 2006. (Environment Canada, for its part, is addressing ways it can help raise consumer awareness around the program.)

De Loe says that eventually he'd like to see a third-party-verified water label on all kinds of products that not only indicates how much water was used, for example, in making a jacket, but the impact of the water footprint of that particular jacket. "I want people to have some simple basic tools they can use to make a difference in terms of the water they use. They shouldn't have to go to night school to figure out the water impact of their consumer choices." ●

WATER FOOTPRINTS

One sheet of paper
= 10 litres of water

One cup of tea (250 mL)
= 30 litres of water

One slice of
wheat bread
= 40 litres of water

One glass of beer
(250 mL)
= 75 litres of water

One cup of coffee
(250 mL)
= 140 litres of water

One hamburger
= 2,400 litres of water

One cotton shirt
= 2,700 litres of water