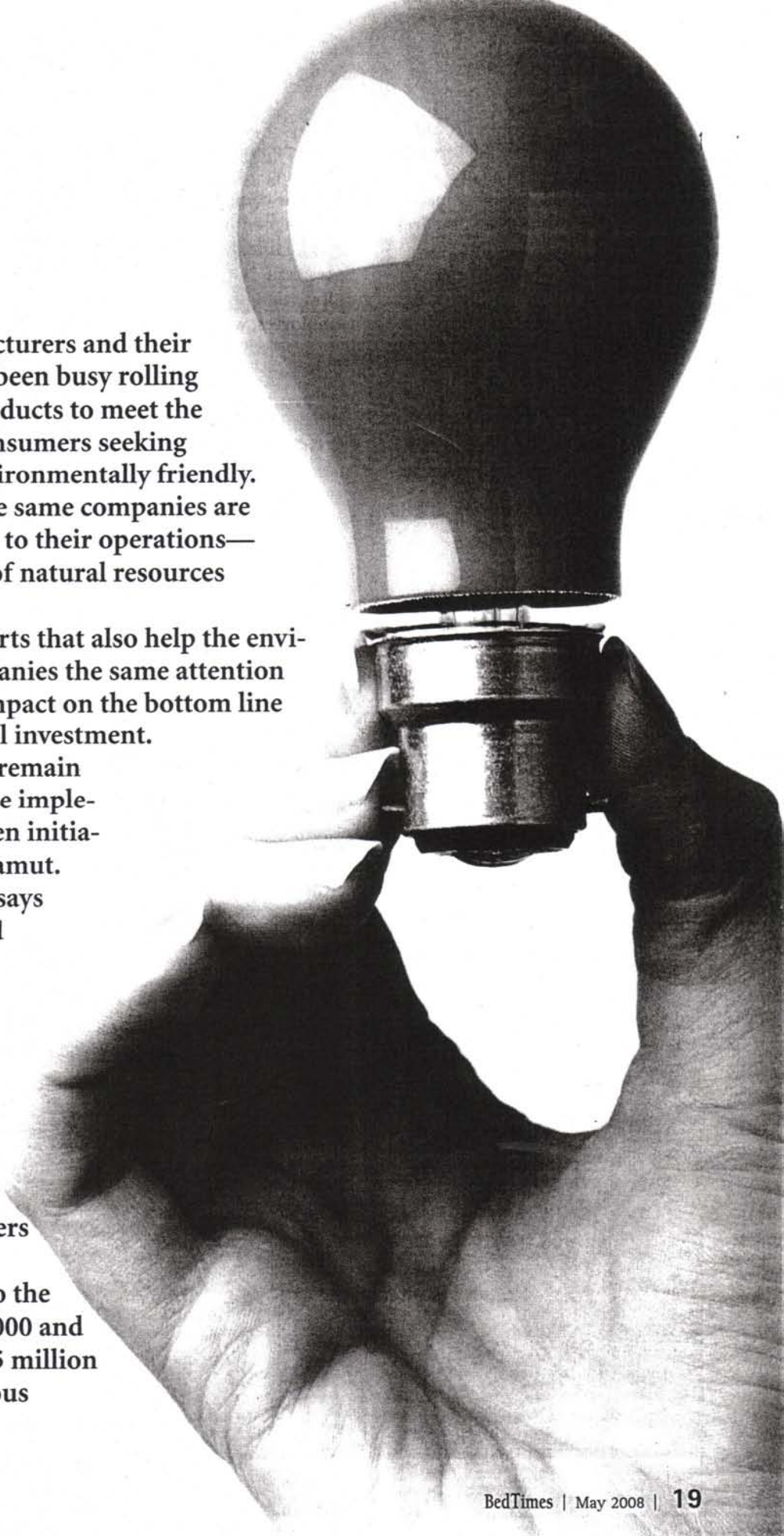
Mattress manufacturers and their suppliers have been busy rolling out "green" products to meet the demands of consumers seeking products that are more environmentally friendly. But behind the scenes, these same companies are making significant changes to their operations—in part to reduce their use of natural resources and to save money.

Internal cost-cutting efforts that also help the environment may not get companies the same attention from consumers, but the impact on the bottom line is clear, even after the initial investment.

Some companies' efforts remain relatively modest; others are implementing companywide green initiatives. Here we look at the gamut.

"We recycle everything," says Charlie Eitel, chairman and chief executive officer of Atlanta-based mattress maker Simmons.

That simple concept has transformed Simmons since Eitel took the helm eight years ago. The company is now one of many bedding manufacturers that collect virtually all of their scrap and move it into the recycling chain. Between 2000 and 2006, Simmons recycled 5.5 million pounds of scrap at its various manufacturing plants.



In late March, the company opened a new 213,000-square-foot factory in Dallas. The facility incorporates several other green practices that will make their way into other Simmons plants.

The person responsible for giving the Dallas plant its green cast is Richard Gawlik, Simmons senior director of facilities and project engineering. A 37-year Simmons veteran, Gawlik says Eitel's commitment to environmentally friendly efficiencies created a new culture within the company and fostered a new way of thinking about solving problems.

"It's a whole new dynamic for us," Gawlik says.

Machinery supplier Atlanta Attachment in Lawrenceville, Ga., focused on creating an environmentally friendly facility when it designed and built its new corporate headquarters, which the company moved into a year ago. The building makes abundant use of windows, cutting the use of electric lighting throughout to the minimum. Giant, high-efficiency fans keep air moving on the factory floor in hot Georgia summers, and rain runoff is captured and reused during the manufacturing process.

"The company has already cut in half its monthly energy use," says Hank Little, Atlanta Attachment president. "Other benefits are a better working environment for our employees, which helps employee morale, reduced insurance costs, as well as received tax benefits from the state. While going green requires an upfront investment and a dedication from management, the rewards and benefits to the entire company are worth the effort."

Bedding maker Spring Air in Elk Grove Village, Ill., is using its new corporate structure to uniformly introduce green practices throughout its network of factories.

Jan Wettergren, Spring Air senior vice president of manufacturing, and Jeff Dower, Spring Air director of engineering, are leading a company-wide team to find and implement environmentally oriented cost-saving measures. For instance, the company is phasing out propane-powered forklifts, replacing them with models powered by rechargeable batteries and easily maneuverable hand carts.

When too much adhesive was used at Hollandia International, a bedding manufacturer headquartered in Israel, the company hired an expert to find out why. He trained the staff to apply the adhesive more conservatively—and with better results. Consumption was cut in half, while bedding production rose.

Taming the paper tiger

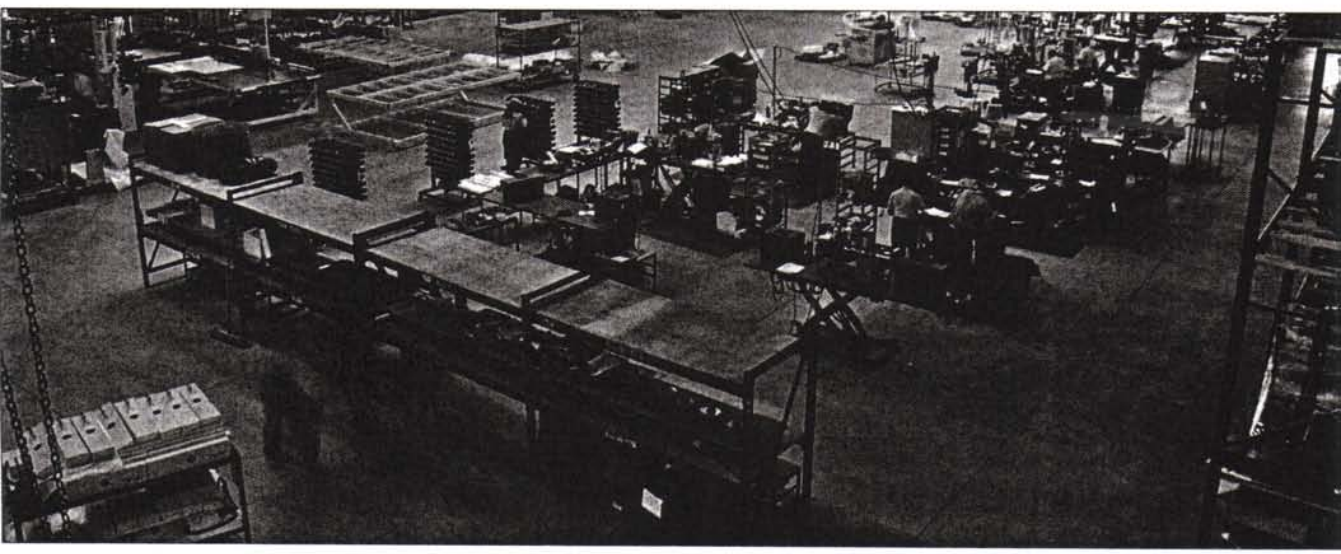
Mattress manufacturer and licensing group Eclipse International began making its facilities more environmentally efficient when it moved its plant from South Plainfield, N.J., to North Brunswick, N.J., nine years ago. It started by cutting paper usage in the office by 50% by mandating that all office memos and internal communications be sent by email.

"With the slew of notes flying around everyone's desk, at the end of the day, we realized we were going through half a dozen reams of paper," says Matthew Connolly, Eclipse president.

Springwall Sleep Products in Mississauga, Ontario, was spurred to do more to save resources at its facilities after the launch last year of its Eco-Series mattress. The company started out simply, by installing blue receptacles for recyclables in its offices.

"It's amazing how much paper you use, even in today's so-called 'paperless society,' " says Mark Campbell, Springwall vice president of sales and marketing.

Simalfa, an adhesives supplier in Hawthorne, N.J., has truly embraced



Green from the ground up Machinery supplier Atlanta Attachment in Lawrenceville, Ga., intentionally designed a more environmentally friendly facility when it built its new headquarters.

Learn more

The following resources can give you ideas and guidance about how to save money and reduce your company's environmental impact.

- **www.energystar.gov** The Energy Star Web site, part of the U.S. Environmental Protection Agency, provides how-to guides for analyzing and improving facilities, offers technical support and suggests financial resources. It includes a section specifically for "Buildings & Plants."
- **www.netregs.gov.uk** NetRegs is a partnership of the three U.K. environmental regulators—the Environment Agency in England and Wales, SEPA in Scotland, and the Environment and Heritage Service in Northern Ireland.
- **www.energysavers.gov** The Energy Savers Web site provides information about saving energy in businesses, industrial plants and vehicles and gives links to resources available from the U.S. government. It's a joint effort of the Department of Energy, Environmental Protection Agency and Department of Housing and Urban Development.
- **www1.eere.energy.gov/consumer/calculators** This U.S. Department of Energy Web site provides calculators that allow businesses to evaluate energy-efficient technologies.
- ***Harvard Business Review on Green Business Strategy*** by various authors. Published by Harvard Business School Publishing, 2007.
- ***Green Building A to Z: Understanding the Language of Green Building*** by Jerry Yudelson and Kevin Hydes. Published by New Society Publishers, 2007.
- **Local utility companies.** These often will conduct energy audits and make recommendations.

that "paperless society" philosophy. Virtually all communication traditionally done on paper, including orders, invoices and instructions to the factory, now is done electronically.

Mike Hopper, Simalfa executive sales assistant, says the lack of paper keeps the corporate headquarters free of filing cabinets and paper buildup.

"We run lean," he says.

Scrap no more

Makers of baling machines, no doubt, are enjoying mattress manufacturers' recycling efforts. Virtually every bedding factory has some sort of baler for cardboard, plastic, foam, fabric or other waste, most of which goes to a recycler instead of the landfill. If a mattress producer doesn't recycle, it's likely missing out on some easy revenue and a means of keeping its plant tidy.

Richard Diamonstein, executive vice president of the Comfort Solutions' licensee in Richmond, Va., has had a baling program in place for years, operating balers for paper, foam and plastic. When filled, Diamonstein calls for a pickup and the company gets paid for it.

Diamonstein's plant also ships back to its innerspring supplier the wooden frames that bind compressed spring units so that the supplier can reuse them.

To minimize the amount of foam scrap it produces, the International Bedding Corp. plant in Phoenix does its own slitting from foam blocks.

"You can get a higher yield and you are in control, cutting only what you need," says Allen Josephson, operations manager for IBC in Phoenix and coordinator of that plant's green practices.

Components supplier Leggett & Platt in Carthage, Mo., is able to recycle a tremendous amount of wire and steel scrap generated during wire and rod production, according to Perry Davis, L&P vice president and president of the company's Bedding Group.

"We own a facility in Sterling, Ill., that takes scrap and melts it to produce rod for wire," Davis says.

Flexible Foam in Spencerville, Ohio, has a thriving business producing carpet padding from its own foam scrap, as does Carpenter Co. in Richmond, Va., and other foam producers. L&P, which no longer produces its own foam, still buys scrap to produce rebonded carpet cushion, Davis says.

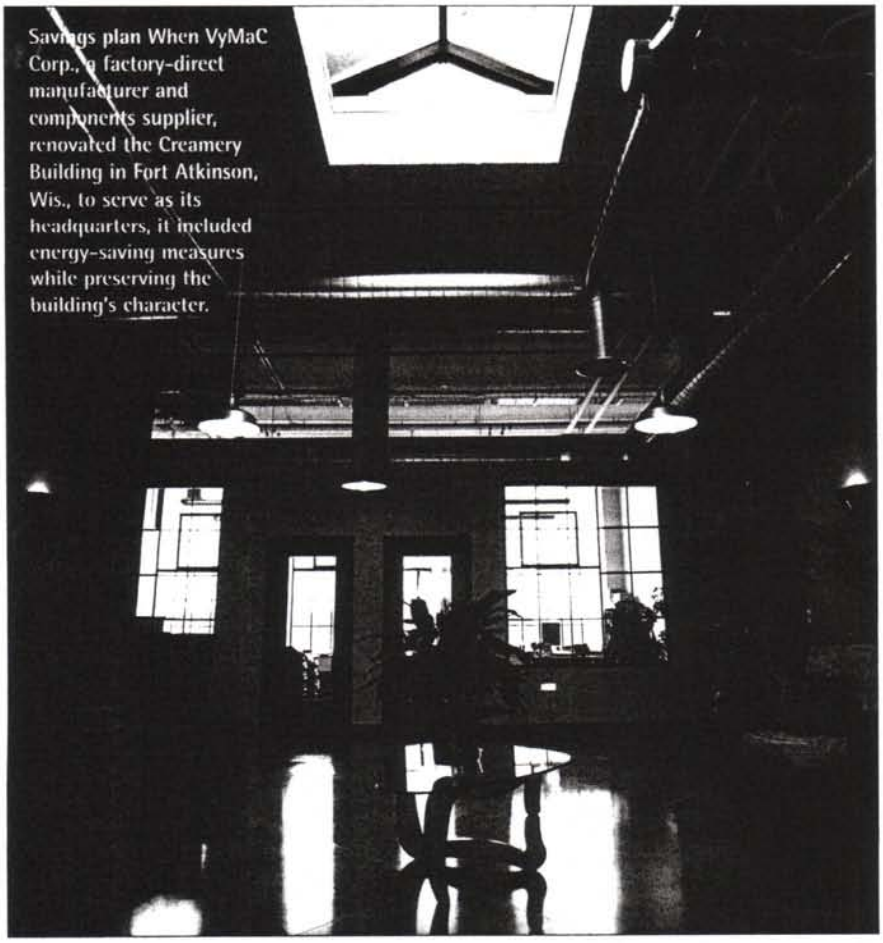
Latexco, a latex foam manufacturer in Tielt, Belgium, has been recycling its latex scraps for 15 years at a company-owned recycling plant. The resulting products have two particularly innovative uses: Once turned into thick, dense pads the recycled foam is installed under railroad tracks to dampen train vibrations; softer versions of the same pads are covered in vinyl and used as beds for cows in barns.

"It's a very well-accepted mattress for cows," says Kevin Callinan, vice president of sales for Latexco-U.S. in Lavonia, Ga.

No extra energy to burn

Often, environmentally friendly efficiency efforts focus on energy conservation.

VyMaC Corp., a Fort Atkinson, Wis.-based factory direct and components supplier, moved to the historic Creamery Building in December 2006—after it had been redesigned inside and out to pre-



Savings plan When VyMaC Corp., a factory-direct manufacturer and components supplier, renovated the Creamery Building in Fort Atkinson, Wis., to serve as its headquarters, it included energy-saving measures while preserving the building's character.

L&P has a corporate-level focus on implementing cost-efficient, consistent approaches to energy management, according to Davis. Among the most effective measures are those that have dealt with compressed-air systems and factory lighting. For instance, efforts to optimize its compressed-air systems have resulted in a savings of 10 million kilowatt-hours per year for the company, he says.

Similarly, Simmons has modified its air-compression network to use high-efficiency models modulated by usage. If the compressor is running at only 79%, it knows to scale back, reducing electricity.

Some time-tested economizers, such as programmable thermostats, are particularly useful on the factory floor. Five years ago, Comfort Solutions' Diamonstein installed programmable thermostats in 12 zones throughout his plant to better regulate heat and cooling.

"When the production day is over, we don't have to remember to turn down the heat or air conditioning," he says. "Those are done automatically."

Who's greenest?

CONSIDERING FACTORS such as greenhouse gas emissions, quality of water resources and habitat protection, *Newsweek* magazine, along with Yale and Columbia universities, created an index of environmental performance, by nation.

1. **Sweden**
2. **Switzerland**
3. **Norway**
4. **Lithuania**
5. **Latvia**
6. **Finland**
7. **France**
8. **New Zealand**
9. **Costa Rica**
10. **Denmark**

* The United States is ranked 66th.

Source: *Newsweek*, April 14, 2008

'While going "green" requires an upfront investment and a dedication from management, the rewards and benefits to the entire company are worth the effort.'

serve its character while incorporating new technologies. Dave Young, VyMaC chief executive officer, was intimately involved in all phases of the project.

The renovated building incorporates large glass windows to provide natural light. But to regulate the heat from the sun, the headquarters has window shutters that automatically cover or uncover the windows, depending on the temperature.

"We fight not only heat loss through the glass but a tremendous amount of heat gain in terms of passive solar gain," Young says.

Tamp down transportation costs

Even with diesel prices reaching $4 a gallon, you still can see truck stop parking lots full of idling rigs.

But you shouldn't find L&P trucks among them. The company, which has an enormous fleet of 375 trucks, realized that its idling trucks were needlessly burning fuel. In fact, it discovered that about one-third of its truck engine use came during extended idling times. So in 2006 L&P began retrofitting its trucks with auxiliary power units that allow drivers to use air-conditioning and heating units, as well as other interi-

No more idling In 2006, components supplier Leggett & Platt began retrofitting its trucks with auxiliary power units to eliminate fuel costs associated with idling.

or functions, when parked for a rest. The engine can remain off. L&P found that the fuel savings was equivalent to driving its fleet 400,000 fewer miles per year.

Other companies are saving money and reducing fuel usage through cube utilization, which ensures trucks aren't sent out with half-loads.

At IBC's Phoenix plant, local deliveries are made by single-axle tractors with smaller engines, allowing the company to get mattresses to retailers without burning fuel at the rate that a heavy-duty, long-distance rig would.

Spring Air looks for efficiencies in its routes and avoids driving empty trucks when it can.

"We work closely with our raw material vendors in case there's a possibility we can do a backhaul, especially from our tick vendors in the Carolinas," Wettergren says.

Lighter lighting bills

As more homeowners switch out their incandescent bulbs for compact fluorescent lights, factory owners are making their own changes.

Gawlik estimates that Simmons' move to cooler, no-glare fluorescent lighting (T-5 and T-8) saves the company 32% to 59% in energy used for lighting.

Similarly, L&P has replaced the lighting at more than 100 of its work areas with low-heat fluorescents.

"Our plant lighting retrofits have given us a savings of over 50 million kilowatt-hours per year," Davis says. "They have a good, long-term payoff in terms of energy savings."

Wettergren plans to move the lights from the high ceilings of Spring Air plants to locations nearer to workers on the plant floor. Such a change will cut costs and improve working conditions.

And several companies, including VyMaC, have installed motion detectors, which automatically turn off the lights when no movement has been detected after a period of time.

Calculating costs

For some companies, it is still too early to quantify all of the financial gains of their internal environmental practices. But they are confident they are seeing savings—savings that will be even more critical if energy prices continue their rise.

Young estimates that VyMaC's new headquarters already realizes a 7% to 10% savings annually in energy costs.

But the efforts to reduce reliance on energy and other natural resources is about more than saving money. It's also an attempt to be a good corporate citizen, Young says.

Eclipse's Connolly says looking for environmentally friendly efficiencies "is simple common sense."

"To be competitive, we have to be efficient," he says. "Running environmentally efficient (plants) begins to be natural." BT

Industry efforts

As it announced earlier this spring, the International Sleep Products Association is undertaking a sustainability initiative with a focus on proper disposal of used mattresses and recycling of their components. A working group will give recommendations to the ISPA board in August about projects to consider and ways to proceed. The result is expected to be ideas for practical ways that the entire industry can reduce its environmental footprint.