

DuPont Sustainability Activities
Update: June 2009

Putting Science to Work...Sustainable Solutions

New Products/Processes/Applications

Renewably-Sourced

- **Susterra®** -- DuPont joint venture DuPont Tate & Lyle Bio Products expanded applications for its innovative renewably sourced product line into de-icing products from Kilfrost, the global leader in de- and anti-icing fluids. Using the venture's Susterra® propanediol into its newest de-icing product – DFsustain. Kilfrost has secured the business of Flybe, Europe's largest regional airline, who were the first in the world to use DFsustain, which the company estimates has the potential to further significantly reduce the airline's carbon footprint.
- **Zytel®** -- The plant-derived DuPont™ Zytel® 610 nylon resin that debuts on DENSO Corporation's new automotive radiator end-tank marks the first use of DuPont renewably sourced plastic in mechanical components exposed to the hot, chemically aggressive underhood environment.
- **PV Intégré** -- DuPont Building Innovations and BP Solar developed and installed DuPont™ PV Intégré, an integrated photovoltaic kit for roofing, on a newly built house in Betting-lès-Saint-Avoid, France. Combining water-tight steel plates fully integrated in roof tiles with solar panels to clip over the steel plates, the system offers superior waterproofness of the building envelope and active renewable energy production. Its notable ease and speed of installation makes the DuPont™ PV Intégré system a cost-saving and versatile solution, adapted to a variety of climates and roof structures.
- **DuPont™ PV5300 and PV5200 Series Encapsulants** – DuPont commercialized two new families of photovoltaic encapsulant sheets that are expected to improve durability and efficiency of photovoltaic modules. The new DuPont™ PV5300 Series and DuPont™ PV 5200 Series deliver long-term protection for the most sensitive part of photovoltaic modules – the solar cells. They contribute to longer life and reduced cost-per-watt, helping system manufacturers deliver more reliable and cost-effective solar power.
- **Insect Repellent** -- DuPont received registration from the U.S. Environmental Protection Agency for an insect repellent ingredient derived from the catmint plant, a sustainable resource more commonly known as catnip

Safer

- **Virkon® S:** In response to the catastrophic decline of vultures in South Asia, World Wildlife Fund (WWF) has launched the Gyps Vulture Restoration Project in Pakistan to conserve a viable population of Oriental White-backed Vultures, also known as gyps bengalensis, in a safe environment. Today, there are only 80

vultures of this species left and 11 of them are in Pakistan. To protect this endangered species, WWF in collaboration with the local wildlife department, is using Virkon® S for disease prevention and control at the Vulture Conservation Center in Pakistan.

- **Nomex on Demand®** -- DuPont announced the latest offering in advanced fibers with DuPont™ Nomex® On Demand™, a new patented smart-fiber technology that gives firefighters up to 20 percent more thermal performance when they encounter emergency conditions.

Research and Customer service centers and capacity expansions

- DuPont Apollo Ltd., a subsidiary of DuPont, debuted its global thin film photovoltaic research and development center at the grand opening ceremony of the Solar Energy Technology Support Center at Hong Kong Science Park in China.
- DuPont has installed its largest photovoltaic solar energy facility at its [Pioneer Hi-Bred](#) Waimea Research Center in Kauai, Hawaii. The Waimea photovoltaic installation is comprised of 1,500 panels – made from several DuPont photovoltaic materials -- produced by Evergreen Solar and installed by REC Solar.
- DuPont opened a new photovoltaic (PV) technical center at its global R&D Center in Shanghai, China. The new PV facility contains three labs, and provides integrated research, development and technical support for customers in the PV industry in China. DuPont expects to nearly triple its annual photovoltaic sales to more than \$1 billion in 2012.

Partnerships

- DuPont is a charter member in an effort by the [The Nature Conservancy](#) to establish watershed monitoring and best management practices (BMPs) in the Boone River watershed in Iowa and the Mackinaw River watershed in Illinois, both located in the U.S. Information gathered from these projects will be used in watershed projects in other agricultural areas.
- Crop production is already making progress toward reducing its environmental footprint, according to a new Environmental Resource Indicators Report developed by a diverse alliance, of which DuPont is a member. [Field to Market, the Keystone Alliance for Sustainable Agriculture](#), evaluated national-scale metrics over the past two decades for land use, water use, energy use, soil loss and climate impact in U.S. corn, soy, cotton and wheat production.
- DuPont is a founding member of the United States Climate Action Partnership, a coalition of NGOs and major corporations who are calling for U.S. passage of legislation to address climate change in a way that is environmentally and

economically sustainable. USCAP unveiled its “Blueprint for Action” a detailed document that outlines critical components of appropriate climate legislation.

Part of the Dialogue...part of the Solution

Market Trends

- DuPont expects to nearly triple its annual photovoltaic sales to more than \$1 billion in 2012 based on strong fundamentals for long-term revenue growth in the photovoltaic solar energy market, combined with the company’s ability to deliver new technologies to the industry.

Thought leadership

- Innovation can eliminate packaging waste and enable a future where all packaging is recycled or its value is recovered. The packaging industry has long focused on reducing to the minimum necessary packaging. But this is not enough – we can do more through innovation,” said [Bill Weber](#), vice president and general manager, [DuPont Packaging & Industrial Polymers](#), during the keynote address at the [Packaging Strategies CEO Summit](#).
- Today’s sustainable products and practices for the global building industry present unique and emerging business opportunities, even in a global recession, said DuPont Building Innovations Vice President and General Manager Tom Schuler at The 2009 Economist Sustainability Summit in New York.
- Addressing climate change may be the single greatest opportunity to reinvent industry while putting the United States on a more sustainable path forward, DuPont Chairman Chad Holliday told the U.S. House of Representatives’ Energy and Commerce Committee in Washington, D.C.
- Properly designed climate change legislation will provide U.S. companies with the certainty they need to innovate, creating new market opportunities and jobs for American workers, DuPont Chair [Charles O. Holliday, Jr.](#) told the U.S. Senate Environment and Public Works Committee in Washington D.C.
- Through investments in materials, technology development and manufacturing, DuPont is accelerating its ability to deliver innovations that will improve the lifetime and efficiency of photovoltaic modules, DuPont Group Vice President Electronic and Communication Technologies at the Jefferies 7th Global Clean Technology Conference in New York.

External recognition

- DuPont recently was recognized for the invention and manufacture of [DuPont™ Cerenol™](#) renewably sourced polyols by the Plastics Environmental Division of the [Society for Plastics Engineers](#) (SPE) with its 2009 Environmental Stewardship Award. Cerenol™ is a family of 100 percent renewably sourced, high-performance polyols (polyetherdiols). Versions of Cerenol™ can replace petroleum-based ingredients or even finished products without compromising functionality. Unlike petroleum-based or other plant-based alternatives, DuPont™

Cerenol™ is easily tailored to meet specific needs and performs better in many end uses while providing significant environmental benefits.

- DuPont recently received the “2008 European Bioplastics Product Line Strategy Award” from Frost & Sullivan -- a leading market consulting company -- for its accomplishments in rapidly developing an extremely diverse range of high-performance materials based on renewable sources.
- The U.S. Federal Trade Commission (FTC) has determined that fibers made from PTT¹, the latest polymer innovation from DuPont, offer a unique combination of attributes which merit a new generic name, **triexta**. PTT polymer sold for the manufacture of triexta for apparel and flooring applications is sold under the DuPont™ Sorona® brand. In addition to the performance advantages recognized by the FTC, Sorona® is made in part from renewably sourced ingredients.
- DuPont China received BusinessWeek’s Green China Business Award for the company’s success in integrating sustainability into its business model.
- The Société de Chimie Industrielle–American Section Awarded the 2009 International Palladium Medal to DuPont Chairman & CEO Chad Holliday for his “distinguished contributions to the chemical industry.”