

Biobased Solutions FOR GOVERNMENT

New Videos Showcase Biobased Successes at Penn State and Jackson Hole Ski Resort - Visit www.soybiobased.org



Sharon Covert

DEAR READER

People throughout the world benefit from the sustainability practices that U.S. farmers like my family use to grow our soybeans.

New York children play on a soy-backed AstroTurf® sports field at Battery Park while Bioheat® warms their homes at the same time China is U.S. soy's largest international customer, increasing its imports of soy meal by nearly 5000 percent between 1990 and 2012.

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Read more about the many sustainability actions U.S. farmers make and our commitment to continuous improvement at our website www.soybiobased.org



Country-City Sustainability Connections Grow through New York Region's Use of Biodiesel & Biobased Products

New York area sustainability efforts are getting a boost from America's soybean farmers, innovative manufacturers and Empire Clean Cities, the New York City region U.S. Department of Energy-designated Clean Cities coalition. They are assisting the region in reducing dependence on foreign oil, gaining environmental benefits and creating American jobs.

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Battery Park City Authority President and Chief Operating Officer Demetrios A. Boutris (at podium) joined the United Soybean Board, AstroTurf®, Empire Clean Cities and others in May at Battery Park's new soy-backed sports field located two blocks from the One World Trade Center. Battery Park installed the 83,000 square foot AstroTurf® field after Superstorm Sandy destroyed the original artificial surface in 2012. Flushing Meadows Corona Park also recently installed AstroTurf® fields made with a soy-based polymer that replace a portion of the petroleum in the turf.



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Because the United Soybean Board (USB) recognizes the importance of continuous improvement in sustainability, we commissioned a peer-reviewed life cycle assessment (LCA) to measure the environmental and energy impacts of U.S. soybean production and processing. USB has shared this internationally accepted LCA with biobased products manufacturers to aid them in assessing their products that use soy as an ingredient to reduce the use of petroleum and harmful chemicals, such as formaldehyde, and more.

This Biobased Solutions for Government is full of examples of companies that have chosen U.S. soy as an ingredient for products, allowing them – and you as a customer – to benefit America’s environment, energy security and economy.

We are excited to see the interest in biobased products in the New York region, which is already a leader in biodiesel use. More than 8000 of New York City’s diesel vehicles run on cleaner-burning biodiesel. The Port Authority of New York and New Jersey has operated equipment on a 20 percent blend (B20) since 2000, making it a cold weather use example to the nation. New York City is the single largest heating oil market in the country, burning about a billion gallons annually. New York City requires the use of B2 Biodiesel “Bioheat” that contributes to cleaner air.

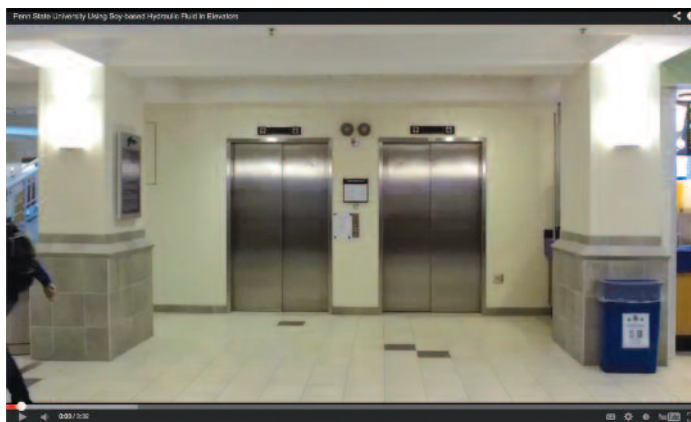
Biobased products are a natural next step for sustainability in the New York region and communities across the country.

— Sharon Covert,
USB Customer Focus
Action Team chair and
soybean farmer
from Tiskilwa, Ill.

Penn State Elevators Go Up — Environmental Risks Go Down

Go to www.soybiobased.org to view USB’s new video showing how and why the Pennsylvania State University switched to Bunge’s AgriTech® in all hydraulic elevators

“Soy-based hydraulic fluid dramatically reduces our exposure to remediation costs if we should ever have a leak or spill in one of our more than 100 hydraulic elevators here at Penn State,” explains Mark Gates, elevator supervisor.



Goodbye Formaldehyde, Hello Soy

From coast to coast, U.S. hospitals, airports, hotels and businesses are installing Oregon-based 9Wood custom wood ceilings and wooden grill installations made with a soy-based adhesive that does not contain formaldehyde. The choice contributes to LEED certification and health benefits.

According to the U.S. Environmental Protection Agency (EPA), formaldehyde can cause irritation of the skin, eyes, nose, and throat. In 2011, the U.S. Department of Health and Human Services listed formaldehyde as “known human carcinogen.” In June 2013, the U.S. Environmental Protection Agency (EPA) issued proposed rules to help protect Americans from exposure to formaldehyde in composite wood products. Go to www.soybiobased.org to learn more.

Book lovers benefit from a soy adhesive eliminating the need for formaldehyde at the Barnes & Noble Café at 86th & Lexington in New York City.

Country-City Sustainability Connections Grow through New York Region's Use of Biodiesel & Biobased Products



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"America's soybean growers are excited that the use of soy as a rapidly renewable ingredient in many products benefits New York area residents, businesses and communities," says Sharon Covert, an Illinois farmer and USB Customer Focus Action Team chair. "New York is a leader with biodiesel used in thousands of vehicles and buildings.

"Now New York's first LEED Gold certified restaurant chose soy-backed Signature Crypton carpet and soy-backed turf is installed at Battery Park as well as roofs across the region. A new soy-based white roof also brings energy and environmental benefits. A soy-based adhesive that contains no formaldehyde is contributing to health in multiple area buildings.

"USB is excited to help grow even more of these country-city connections in the future," Covert says.

New York area residents are gaining useable living space on roof tops, play grounds, putting greens, pet turf and more with durable soy-backed artificial grass from SynLawn. The company replaces more than 60 percent of the petroleum-based polyurethane with soybean oil. In addition to requiring no water, the artificial grass helps to lower temperatures thus reducing energy consumption in buildings.

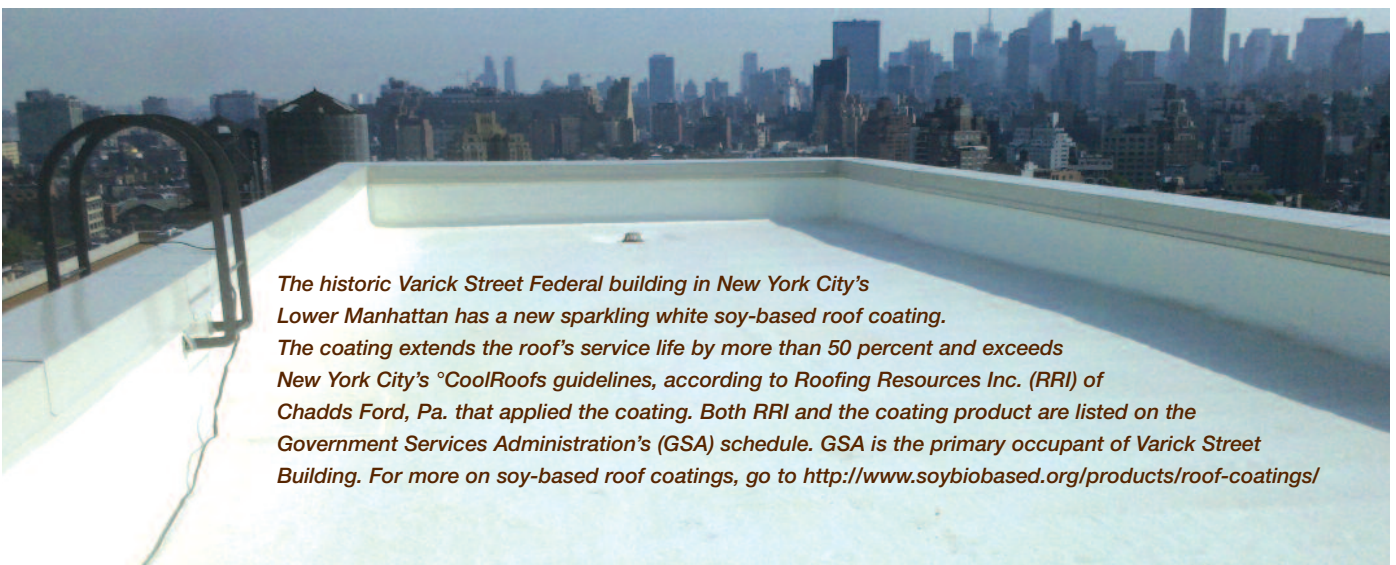
Long-time biobased champion Chris Case (left), retired chief of facility management at Pictured Rocks National Lakeshore in Michigan, provides hands-on biobased training to Glen Greico, who is the Port Authority of New York and New Jersey general maintenance supervisor, central automotive division. USB supported Case's demonstration of soy biobased products in the auto shop. Port officials will soon participate in a USB biobased product pilot program to try a wide-range of soy-based products in their maintenance operations.

The USB biobased project builds on the Port Authority's success with biodiesel since 2000. The Port has used a 20 percent blend (B20) of biodiesel in all their diesel vehicles, which are key to operating famous New York and New Jersey locations such as the Brooklyn Bridge, Lincoln Tunnel, the World Trade Center and JFK International airport. Their biodiesel fueling network includes 12 onsite fueling locations in addition to a network of off-site retail service stations.





The Harlem Applebee's is the first LEED Gold restaurant in New York and soy-backed carpet contributed to achieving that designation. The restaurant installed Signature Crypton Carpet's Yellowstone Collection, which contains a soy-based backing system from Universal Textile Technologies (UTT). The company combines soybean oil with recycled bottles collected at Yellowstone National Park. USB and Empire Clean Cities representatives toured the innovative Applebee's and met with Apple-Metro's Director of Construction and Facilities Mike Berry (shown in black jacket at top of stairs).



The historic Varick Street Federal building in New York City's Lower Manhattan has a new sparkling white soy-based roof coating. The coating extends the roof's service life by more than 50 percent and exceeds New York City's °CoolRoofs guidelines, according to Roofing Resources Inc. (RRI) of Chadds Ford, Pa. that applied the coating. Both RRI and the coating product are listed on the Government Services Administration's (GSA) schedule. GSA is the primary occupant of Varick Street Building. For more on soy-based roof coatings, go to <http://www.soybiobased.org/products/roof-coatings/>

Biobased Product Categories Designated by USDA for Federal Procurement Preference

The U.S. Department of Agriculture (USDA) has designated 97 BioPreferred® product categories required for preferred federal purchasing. In the process, minimum biobased content standards are established for each product category. For more details on the product categories go to <http://www.biopreferred.gov/ProductCategories.aspx>

Item	Minimum Biobased Content
Adhesive and Mastic Removers	58%
Agricultural Spray Adjuvants.....	50%
Animal Cleaning Products	57%
Animal Repellents	79%
Aircraft and Boat Cleaners	
Aircraft Cleaners.....	48%
Boat Cleaners.....	38%
Air Fresheners and Deodorizers	97%
Asphalt and Tar Removers.....	80%
Asphalt Restorers.....	68%
Automotive Care Products.....	75%
Bath Products	61%
Bathroom and Spa Cleaners	74%
Bedding, Bed Linens and Towels	12%
Bioremediation Materials	86%
Blast Media	94%
Candles and Wax Melts.....	88%
Carpets	7%
Carpet and Upholstery Cleaners	
General Purpose Cleaners	54%
Spot Removers.....	7%
Chain and Cable Lubricants	77%
Composite Panels	
Acoustical Panels.....	37%
Interior Panels.....	55%
Plastic Lumber	23%
Structural Interior Panels.....	89%
Structural Wall Panels	94%
Countertops and Solid Surface Products	89%
Compost Activators and Accelerators.....	95%
Concrete and Asphalt Cleaners.....	70%
Concrete and Asphalt Release Fluids	87%
Corrosion Preventatives	53%
Cuts, Burns, and Abrasions Ointments	84%
De-Icers - General Purpose	93%
Deodorants	73%

Item	Minimum Biobased Content
Dethatchers.....	87%
Diesel Fuel Additives	90%
Dishwashing Products	58%
Disposable Containers	72%
Disposable Cutlery	48%
Disposable Tableware.....	72%
Dust Suppressants.....	85%
Electronic Components Cleaners	91%
Engine Crankcase Oil.....	25%
Erosion Control Materials.....	77%
Expanded Polystyrene (EPS) Foam Recycling Products...	90%
Fertilizers	71%
Films	
Non-Durable Films	85%
Semi-Durable Films	45%
Firearm Lubricants	49%
Floor Cleaners and Protectors.....	77%
Floor Coverings (non-carpet)	91%
Floor Strippers	78%
Fluid-Filled Transformers	
Synthetic Ester-Based.....	66%
Vegetable Oil-Based.....	95%
Food Cleaners.....	53%
Foot Care Products.....	83%
Forming Lubricants.....	68%
Fuel Conditioners.....	64%
Furniture Cleaners and Protectors.....	71%
Gasoline Fuel Additives	92%
Gear Lubricants	58%
General Purpose Household Cleaners	39%
Glass Cleaners	49%
Graffiti and Grease Removers.....	34%
Greases	
Food Grade	42%
Multipurpose.....	72%
Rail Track.....	30%
Truck.....	71%
Not Elsewhere Specified	75%

Item Minimum Biobased Content

Hair Care Products	
Conditioners	78%
Shampoos	66%
Hand Cleaners and Sanitizers	
Hand Cleaners.....	64%
Hand Sanitizers	73%
Heat Transfer Fluids	89%
Hydraulic Fluids - Mobile Equipment	44%
Hydraulic Fluids - Stationary Equipment	44%
Industrial Cleaners	41%
Inks	
Specialty Inks	66%
Sheetfed - Color.....	67%
Sheetfed - Black.....	49%
Printer Toner - < 25 ppm.....	34%
Printer Toner - ≥ 25 ppm	20%
News.....	32%
Ink Removers and Cleaners.....	79%
Interior Paints and Coatings	
Latex and Waterborne Alkyd	20%
Oil-Based and Solventborne Alkyd	67%
Laundry Products	
General Purpose.....	34%
Pretreatment/Spot Removers	46%
Leather, Vinyl, and Rubber Care Products	55%
Lip Care Products	82%
Lotions and Moisturizers.....	59%
Metal Cleaners and Corrosion Removers	
Corrosion Removers.....	71%
Other Metal Cleaners	56%
Stainless Steel.....	75%
Metalworking Fluids	
General Purpose	57%
High Performance	40%
Straight Oils	66%

Item Minimum Biobased Content

Microbial Cleaning Products	
Drain Maintenance Products.....	45%
General Cleaners.....	50%
Wastewater Maintenance Products	44%
Mulch and Compost Materials.....	95%
Multipurpose Cleaners	56%
Multipurpose Lubricants	88%
Oven and Grill Cleaners.....	66%
Packing and Insulating Materials.....	74%
Paint Removers.....	41%
Parts Wash Solutions	65%
Penetrating Lubricants	68%
Plastic Insulating Foam for Residential and Commercial Construction	7%
Pneumatic Equipment Lubricants.....	67%
Roof Coatings	20%
Shaving Products.....	92%
Slide Way Lubricants	74%
Sorbents.....	89%
Specialty Precision Cleaners and Solvents	56%
Sun Care Products.....	53%
Thermal Shipping Containers	
Durable	21%
Non-durable.....	82%
Topical Pain Relief Products	91%
Turbine Drip Oils	87%
Two-Cycle Engine Oils	34%
Wastewater Systems Coatings	47%
Water Clarifying Agents	92%
Water Tank Coatings	59%
Water Turbine Bearing Oils	46%
Wood and Concrete Sealers	
Membrane Concrete Sealers.....	11%
Penetrating Liquids	79%
Wood and Concrete Stains.....	39%

Sustainable Product Inspired by National Treasure has Broad Reach



The Shelton Group, a leading marketing firm exclusively focused on energy efficiency and sustainability marketing, walks the talk. The firm installed the Yellowstone Collection their new office space in May 2013. Go to www.soybiobased.org to read a feature on the Shelton Group's choice of the Yellowstone Collection.



The University of Maryland installed the Yellowstone Collection carpet in the women's basketball team locker room.

Jim Evanoff, former environmental protection specialist at Yellowstone National Park, approached USB with a problem. An early pioneer in using biodiesel and biobased products at Yellowstone, Evanoff wanted to do something about the 43 tons of bottles left at the park each year that were being shipped overseas. He wanted to find an American company to use the bottles.

What transpired is a unique partnership between three environmental leaders: Yellowstone National Park, Signature Crypton Carpet and Universal Textile Technologies. The company purchases Yellowstone's recyclable plastic bottles and uses them in a unique process that combines soybean oil and recycled bottles to make backing for carpet and select synthetic turf products.

Three years later, Signature Crypton Carpet's Yellowstone Collection is now bringing environmental benefits to the private and public sector. The first LEED Gold certified restaurant in New York City — the Harlem Applebee's — installed the carpet in the spring of 2013 (see story on page 5). The soy-backed carpet contributed to achieving that designation.



America's farms are just beginning to tap their potential as a source for natural, renewable biobased products that offer benefits to worker health, the environment, America's economy and energy security. To learn more about the many biobased products made from soybeans, go to www.soybiobased.org. Because of the potential for biobased products to create new markets for soybeans, U.S. soybean farmers have invested millions of dollars to research, test and promote biobased products. Much of this work was done through the United Soybean Board (USB), which is composed of 69 U.S. soybean farmers appointed by the U.S. Secretary of Agriculture to invest soybean check-off funds. As stipulated in the Soybean Promotion, Research and Consumer Information Act, USDA's Agricultural Marketing Service has oversight responsibilities for the soybean checkoff.



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