BioPreferred®

BioBuzz BioBuzzGov

SPECIAL EARTH DAY ISSUE

The BioPreferred Program Celebrates Earth Day 2023—And You Can Too!

This year's Earth Day theme, "Invest in Our Planet", aligns closely with the BioPreferred® Program's mission. But what does it mean to invest in our planet? The planners of Earth Day have offered up three areas where each of us can make a difference.

We can: Plant Trees | Wear Sustainable Fashion | End Plastic Pollution

In this special combined issue of BioBuzz and BioBuzzGov, we celebrate Earth Day 2023, explore these themes in detail and encourage everyone to *commit to switch* to biobased products.

"Plant Trees" AND Spring into Action with Biobased Landscaping Products

The "plant trees" theme emphasizes the role of trees and other plants in removing carbon dioxide from the atmosphere and sequestering that carbon in the soil. Products made from plants can also replace their petroleum-based counterparts. This is the primary focus of the BioPreferred Program: encouraging people, businesses, and federal agencies to buy and use biobased products rather than relying on petroleum-based options.

Of course, when we think of spring, we think not only of planting trees, but also about landscaping—whether that's at home or through groundskeeping contracts for federal or commercial properties.

Is it possible to have a beautiful, lush landscape and be environmentally friendly? Yes! It's not only possible, but it is relatively easy to choose biobased products for your landscaping needs. Biobased products span many groundskeeping categories within the BioPreferred Program Catalog, from dethatchers and erosion control to soil amendments and mulch. Using biobased products over conventional products eliminates contaminates; reduces air, soil, and water pollution; and protects the ecosystem.

Amending the soil with biobased fertilizers and compost will improve both the condition and the texture of the soil to help your plants get the nutrients they need. There are many types of biobased fertilizers available on the market today. Before fertilizing you may want to check with your local agricultural extension office to learn of their recommendations.

Weed killers (or herbicides) can help control crabgrass, dandelions, ragweed, and other common weeds that may become problematic. Traditional herbicides often contain harsh chemicals, so biobased products made from soap, fatty acids, and other renewable ingredients may better suit your needs. Consider biobased weed barriers as well to reduce the need for herbicides.

And don't forget the biobased two-cycle engine oils for your weed eaters and mowers!

"Fashion for the Earth" Isn't Limited to Cotton T-Shirts and Wool Socks

Perhaps when you think of biobased fashion, you think of cotton t-shirts and wool socks, but there's so much more available. In fact, just this year, the USDA BioPreferred Program created a Footwear category to distinguish it from the other clothing products that are offered in the USDA BioPreferred Program Catalog. In the clothing category, you can find underwear made from Tencel™, biobased bras, and biobased leggings. In Footwear, you'll find 30 different shoe styles that have 25% or greater biobased content. Additionally, in 2022, the Personal Accessories category was created for 11 products with a biobased content of 74% or greater.

But sustainable fashion doesn't end there. Not only can you find finished retail products in the USDA BioPreferred Program Catalog, but there are Intermediates-Fibers and Fabrics and Intermediates-Textile Processing Materials categories, also. There are over 400 products in the Intermediates-Fibers and Fabrics category. These materials are used to manufacture finished products, such as clothing and footwear, and Intermediates-Textile Processing Materials are used to give fibers and fabrics new qualities like waterproofing.

The Program has also seen rapid growth in artificial leather. Pleather. Eco-leather. Vegan leather. PU leather. Faux leather. There are so many different names because this category of Intermediates – Fibers and Fabrics is so diverse. There are over 130 artificial leather products in the Catalog made from everything imaginable—with a few surprises, like coffee grinds. Due to innovation in the industry, fashion can be sourced from a variety of raw materials. Predominate raw materials that make up artificial leather include corn (57%) and forestry/wood (44%). Other raw materials include plants like agave, aloe, apple, banana, and pineapple. Most surprising of all is how resourceful companies are—using biowaste streams from harvesting or industrial processing. Not only can these fabrics be used for fashion like clothing, shoes, or bags but many can be used for packaging or for car interiors, as well.

So, the next time that you purchase clothing, take a look at the tag, and see what it's made from. You may not be lucky enough to find "apple" or "agave" on an ingredients label but you can look for products that are made primarily from plants. When you do, you'll know they are biobased and limit the amount of petroleum in the product. This is the future of fashion—one that depends on a bounty of biobased resources. That is fashion, for the Earth.

"End Plastic Pollution" by Taking Everyday Action

Plastics are a major part of today's world, from food containers, single-use tableware, and packaging to toys and fabrics. Yet in many cases, there are biobased non-plastic or bioplastic options that may be used instead. The End Plastic Pollution campaign is designed to help people understand the impacts of plastic pollution on human and ecosystem health and how everyday actions—like switching to bioplastics—can lessen the problem.

Bioplastics are made by converting the sugar present in plants into plastics. Bioplastics can replace petroleum in many types of products, including in toys, toiletries, combs, toothbrushes, packaging, and disposable tableware. When it comes to taking everyday actions, here are a few examples:

- Instead of petroleum-based polystyrene packaging or plastic bottles, look for items like coated cardboard packaging or molded packaging made from paper, starch, or even mushroom mycelium.
- Rather than petroleum-based plastic cafeteria supplies, buy bamboo cutlery, palm leaf plates, molded fiber containers, or paper straws.
- If the idea of a soggy paper straw makes you cringe, use biobased plastics that are biodegradable or compostable. Since compostable biobased plastics are biodegradable in an industrial composting facility, it is important to dispose of compostable plastics properly to reduce plastic pollution.

Two ways to help end plastic pollution:

1) Buy non-plastic biobased alternatives to single-use plastics.
2) Use biobased plastics that are biodegradable or compostable.

Perhaps most important, look for the USDA Certified Biobased Product label, which enables you to easily identify biobased products as you strive to do your part to end plastic pollution. To identify USDA Certified Biobased Products that are also compostable, find those that have been tested to compostability standards such as ASTM D6868 or D6400 or are certified by programs such as the Biodegradable Products Institute.

Excellence in Procurement Awards Spotlight: The Y-12 National Security Complex

Y-12 National Security Complex

Y-12 Security Complex

2022 EXCELLENCE IN PROCUREMENT AWARD WINNER

The Y-12 National Security Complex (Y-12) is a premier manufacturing facility dedicated to making our nation and the world a safer place and plays a vital role in the Department of Energy's Nuclear Security Enterprise. Y-12 is also committed to advancing the procurement and use of biobased products through integration into contractual requirements. One recent innovative project that contributed to Y-12's sustainable acquisition efforts was the Y-12 Transformer Retrofill Project, in which biobased FR3® fluid was used to retrofill 20 transformers. Not only is FR3 biobased, but it is also less flammable than traditional petroleum-based fluids.

The project's goals were to conserve natural resources, reduce costs, and comply with Federal Acquisition Regulations mandating the use of biobased products. Switching to biobased transformer fluid reduces fire risk and emissions, increases transformer lifetime, and lowers the likelihood of harmful environmental impacts.

Success involved collaboration between several Y-12 teams, including utilities, recycling and procurement, as well as teams at Consolidated Nuclear Security (CNS), the federal contractor leading the facility's Maintenance & Operations efforts. "We have a goal to introduce 10 sustainable products each year," explained Brad Russell, CNS Sustainable Acquisition Program.

"Typically, we start by doing market research in the BioPreferred® Program Catalog. We review all our purchasing data to see where we can do better. We work with folks at Y-12 to see what types of products they want and need. If it's biobased, we'll check the website to make sure we're meeting the regulations."

Given its demonstrated commitment to utilizing biobased products to protect the longevity of the infrastructure they service as well as the surrounding environment, the USDA BioPreferred Program recognized the Y-12 National Security Complex Utilities Department with the 2022 Excellence in Procurement Award.

For more information, see our Y-12 case study here!

Did you Hear?

The U.S. Department of Defense signed a memorandum of understanding with the U.S. General Services Administration to help expedite bringing environmental innovations into the federal marketplace. What does this mean for you? Stay tuned to find out!

Want to stay up to date on what's happening in the bioeconomy and with our Program?

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