

In Dozens of Ways

USDA Facility Uses Biobased Products To Combine Mission, Policy and Research with Everyday Operations



U.S. Department of Agriculture Beltsville Agricultural Research Center (BARC) employees won the White House Closing Circle Award in 2002 for their environmental efforts that included extensive use of biobased products. Several BARC employees were on "Team Biodiesel" that garnered the same award in 2001 for their initiatives to use and promote biodiesel.

The Beltsville Agricultural Research Center (BARC) has plenty of 'official' reasons to test and try biobased products, but the real reason we use so many is because they work so well," explains Bob Coulson, supervisor of the Roads and Ground Unit at the facility.

Coulson quickly rattles off about a dozen biobased products used virtually every day throughout the year from 90-weight gear oil to high-pressure grease to 150 engines running on biodiesel to hand soap. "My crew likes all of these products, but you know which one they wouldn't do without? The hand soap made from soybeans and walnuts," he answers. "As far as they're concerned, it's the best. It's irreplaceable."

So what are BARC's "official" reasons to use biobased products? The 6,584-acre facility with hundreds of laboratories,

greenhouses and office and storage buildings is a major U.S. Department of Agriculture (USDA) research facility located just across the line from Washington, D.C., in Maryland.

"A part of our mission as part of USDA's Agricultural Research Service (ARS) is to develop and test new agricultural products so biobased products fit very nicely into our programs here," says John Van de Vaarst, Deputy Area Director, Facilities Management and Operations Division at BARC. "In support of that effort and also to be just a good steward of our resources and environment, several years ago the leadership of BARC made a commitment to 'sustainability,' or in other words, to find every way possible to utilize environmentally sound products that preserve and protect resources in a variety of ways.

"Biobased products are just one example of our sustainability policy. Another is tomatoes. We grow them here in various research projects. When we use all of the produce we need for testing and research, the rest is donated to various organizations in the metropolitan area involved in providing food to the needy. It may be a cliché but throughout the facility, our policy is 'waste not, want not,'" says Van de Vaarst, who has the full support of BARC's, Director Dr. Phyllis Johnson.



A hand cleaner made from soybean oil and walnuts is irreplaceable in the shop at Beltsville Agricultural Research Center.

"I think people outside agriculture will want to use these products," says Johnson, who has the new soy-backed carpet in her office, "But you need high-level leadership to get this type of program going."



Dozens of biobased products get high marks in terms of performance, according to Bob Coulson, supervisor of the Roads and Ground Unit at the 6,584-acre facility with hundreds of laboratories, greenhouses and office and storage buildings.

Another “official” reason for using biobased and other similar products is Executive Order 13101, Greening of the Government Through Waste Prevention, Recycling and Federal Acquisition, issued in 1998. Based on their achievements with EO 13101, several BARC employees, including Van de Vaarst, were part of “Team Biodiesel” that won the White House Closing Circle Award in 2001. BARC won the award again in 2002 for its over all effort, including the use of many other biobased products.

Regarding specific biobased products, BARC’s pioneering effort with biodiesel as a vehicle fuel has expanded to using it as heating oil. That commitment has grown. “Any moving part of any tool or vehicle that needs lubrication and/or hydraulic fluid to work, we’re probably using a biobased product,” explains Coulson.

In addition to the lubricants, fluids and hand cleaners, biobased products used at BARC include paint, wood finishers, paint strippers, solvents and cleaning fluids.

Biobased products also play a role in helping BARC in case there are petroleum spills. With all the equipment used for farming and for grounds maintenance, petroleum spills are likely to happen despite spill prevention plans. When a small petroleum spill occurs, spill clean-up kits that contain environmentally friendly products are used. If a larger accident happens, biobased absorbent products are used to clean up the spill. One such product is derived from corncocks. After the use on the spill, the absorbent materials is then used at the facility as a higher BTU fuel for furnaces instead of being disposed of as a hazardous waste. Even the Radiation Safety Unit uses a biobased product for surface contamination clean up.

As David Prevar, BARC Safety and Health Manager concludes, “Our environmental sustainable system here at BARC is a perfect alliance of our research function with management of day-to-day operations.”

FACT FILE

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America’s farmers are just beginning to tap agriculture’s 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 like the ones used by BARC, go to the Biobased Products Catalog at www.unitedsoybean.org

Because of the potential for biobased products to create new markets for soybeans, U.S. soybean farmers have invested more than \$50 million to research, test and promote biobased products. Much of this work was done through the United Soybean Board (USB), which is composed of 62 U.S. soybean farmers appointed by the U.S. Secretary of Agriculture to invest soybean checkoff funds.



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