

## Soy Biobased Demonstration Shows Performance and Reliability for Greener Equipment, Cleaning and More

*It happened just the way it is supposed to work. The people in the business of introducing new products and procedures know that there are classic ways to achieve their goals. One is to find a “champion” and another is to find a source of products for actual trials in the “field.”*

And, that’s exactly what occurred when Hiawatha National Forest Fleet Manager W. Toby Rhue began working in 2007 with Michigan Soybean Promotion Committee (MSPC) Field Operations Director Keith Reinholt. Rhue was the champion for biobased products use at the 879,000-acre facility in Michigan, and the MSPC provided the trial products. But this story actually goes back to 2006 when Rhue attended a biobased fuel and lubrication workshop in Marquette, Michigan. Pictured Rocks National Lakeshore Facility Manager Chris Case led a session on biobased products. (Go to [www.soybiobased.org](http://www.soybiobased.org) to read about Case’s own use of biobased products at the National Park where he works in Michigan.)

“I immediately began thinking about how we at Hiawatha could benefit by using these products that Chris had tested and was so enthusiastic about,” says Rhue. “I coordinate the management of over 200 pieces of transportation equipment, ranging from fire engines to road graders to road vehicles like cars and trucks. The positive environmental aspect of these products are important to us in the National Forest Service and we knew, particularly being a part of the U.S. Department of Agriculture, that we would eventually need to comply with the Federal preferential purchasing for biobased products program.

“But I also knew I had to figure out how to get our people to try, and hopefully begin using them, full time. I also met Keith Reinholt at one of Chris’ seminars, and we began discussing how his organization might help us out through their complimentary biobased products sampling program.”

Rhue began his internal preparations to ensure success in 2006. He conducted a one-day biobased fuels and lubricant seminar on each side of the Forest. He organized and conducted the seminar with presenters Chris Case, Keith Reinholt and William Gamier of Renewable Lubricants Inc... In 2007, Rhue met with Forest staff responsible for purchasing supplies, suggested sources for biobased lubricants and asked individuals planning orders to let others know so that orders could be consolidated. Through all of this Rhue and Reinholt continued to talk, and Reinholt suggested that the Hiawatha employees might use even more biobased products if they were just given the right opportunity.

Rhue and Reinholt worked out details of the MSPC complimentary sampling program, “We got the samples and started using them in the summer of 2008,” explains Rhue who points out that, “The people who used the products were the ones that decided whether they’ll be adopted for use in the future based on how well the products perform and particularly their reliability.”

Recreation Technician Brenda Madden is in charge of the maintenance of more than 20 recreation sites and facilities



*Keith Reinholt (left) of the Michigan Soybean Promotion Committee and Hiawatha National Forest’s Fleet Manager Toby Rhue worked closely to encourage the use and adoption of soy biobased products in various areas of the National Forest in Michigan’s Upper Peninsula.*



*Toby Rhue is proud of their new Caterpillar skidder. He asked for and got the company to send it “green loaded”—so all of the hydraulic fluids were soy biobased from the start—a first for Hiawatha National Forest.*



Forest Fleet Manager Toby Rhue and Recreation Technician Brenda Madden at Hiawatha National Forest discuss the many biobased products they will use to keep the dozens of recreation sites and facilities neat, clean and trimmed.

on the west unit of the Hiawatha National Forest. "All of the products we used work really well. That includes cleaning products, two-cycle engine oil, and bar-and-chain oil, penetrating oil and hand cleaners. And, speaking of hand cleaners all of my people just love the biobased hand cleaners. They

say it's like using lotion on their skin."

Forest Heavy Equipment Operator Daryl Ulberg reports similar good results for performance and reliability. "I operate road graders, backhoes, bulldozers, loaders and skidders — big pieces of hard-working equipment," he says. "We are using biobased hydraulic fluids and grease. These products work just as well as the petroleum-based counterparts. I like them and hope we continue to use them."

Rhue says that when the Forest was ready to replace two large log skidders and a grader, they asked bidders' price quotes to have the equipment delivered 'with green hydraulic fluid'. In other words, we wanted it to come using biobased hydraulic fluid in the transmission and lift cylinders. The winner of those bids, Caterpillar, agreed to these specifications. These were our first pieces of equipment that have come that way. I'm sure it won't be the last," he concludes.

## Hiawatha National Forest

The Hiawatha National Forest is geographically tucked between three of the Great Lakes, within the central to eastern portion of the Upper Peninsula of Michigan. Rolling forested hills, and large open and tree-covered wetlands form the 879,000 acres of the Hiawatha.

For more information about the project contact:

Keith Reinholt, Michigan Soybean Promotion Committee,  
989-652-3294 reiholt@michigansoybean.org

William "Toby" Rhue, Hiawatha National Forest,  
906-789-3364 wrhue@fs.fed.us

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Daryl Ulberg, a heavy equipment operator, pours the first biobased hydraulic fluid into one of the pieces of heavy equipment he operates and helps maintain. "Works great," he says.

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Hiawatha National Forest



## The following is a list of products used in the demonstration:

Manufacturer	Products
Bi-O-Kleen Industries	Soy Toilet Scrub
Environmental Lubricants	Soy Grease Multi-Purpose EP
Franmar Chemical	Hand Sanitizer & Soy Scrub Pump Hand Cleaner
Nature's Broom	Absorbent
Renewable Lubricants	Bar Chain Oil 15W50, Bio Penetrating Oil, and Bio Parts, Cleaner/Degreaser & Bio-TC-W3 2 cycle oil
SoyClean	Soy Gel Paint Stripper, Soy Seal Concrete Sealer, Soy Wood, Sealer & Soy Clean Driveway, Sidewalk, Patio Cleaner
SoySafe	Basin and Tile Cleaner

## Manufacturer Contact Information

Bi-O-Kleen Industries	800.477.0188 <a href="http://biokleenhome.com">http://biokleenhome.com</a>
Environmental Lubricants	319.277.9075 <a href="http://www.elmusa.com">http://www.elmusa.com</a>
Franmar Chemical	800.538.5069 <a href="http://www.franmar.com">http://www.franmar.com</a>
Nature's Broom	662.839.69 <a href="http://www.natures-broom.com">http://www.natures-broom.com</a>
Renewable Lubricants	330.877.9982 <a href="http://www.renewablelube.com">http://www.renewablelube.com</a>
SoyClean	888.606.9559 <a href="http://www.soyclean.biz">http://www.soyclean.biz</a>
SoySafe	866.359.9401 <a href="http://www.soySAFE.com">http://www.soySAFE.com</a>
Nature's Broom	662.839.69 <a href="http://www.natures-broom.com">http://www.natures-broom.com</a>

## FACT FILE

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 68 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 check off.



16640 Chesterfield Grove Road, Suite 130 • Chesterfield, MO 63005-1429

1-800-989-USB1 • (1-800-989-8721) • FAX: 636-530-1560

E-mail: merker@smithbucklin.com

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