

Ohio News Watch

Make way for bioproducts

By TIM WHITE

NEW research contracted by the Ohio Soybean Council shows that 88% of consumers would choose an environmentally friendly product if it was priced the same as a conventional one and available at the stores where they usually shop.

It's a trend that entrepreneur Cathy Horton from Chagrin Falls is ready to cash in on — even if it means taking on a well-established product like WD-40. In the winter of 2006, Horton, an attorney who grew up on a grape farm in western New York, was cleaning her kitchen cupboard when she found a can of WD-40 that had not been used in some time. The little red straw was sitting next to what she realized was a fairly corroded can.

"The can was rusty," she says. "This is an anti-corrosive agent, and the can was rusty in my kitchen." She looked at the list of ingredients and found



Key Points

- Entrepreneur puts green products on store shelves.
- OSC funding earns awards for innovation.
- Government procurement policies grease market.

some 45 different forms of petroleum lubricants, including kerosene and mineral spirits. That was the start of what she calls "a green dream."

In two short years the dream has led to two lines of green lubricant products based on soy oil. One line she has patented as the "Smart Green" products, which are mostly soy products. The other is her "Pure Green" line, which features entirely soy oil and can be used around food. Both are available at select Home Depot, True Value and Ace hardware stores.

"We're a small company, and it is all so new; we still dance in the office every time a new order comes in," Horton says.

She has enhanced the green status of her products by packaging them in recyclable aluminum cans and using nitrogen as a propellant. She uses soy-based ink on the label even though it takes longer to dry. The lubricant containers have the look of hair-care products and appeal to a female buyer.

"With my farm background, I try to use Ohio agricultural products as my materials whenever I can," Horton says.

The OSC has encouraged creation and adoption of bio-

SOY SUCCESS: Entrepreneur Cathy Horton uses soy oil in various new products introduced by her company, Nutek LLC.

products using soy for more than a decade, reports John Lump, executive director. The council directs more than \$1 million a year to the development of new uses for soybeans through an agreement with Battelle Memorial Institute. The program has resulted in five different development products being recognized with R&D 100 Awards, which are presented annually to the top 100 innovations of the year. The most recent is a plastic material made from soybean meal. OSC and Battelle will receive the award for this product in November.

Last month another R&D 100 winner worked through the development process and came to the marketplace. The toner created with soybean oil, called AgriTone, works in select laser printers (see story below).

"We are pleased to see this project come to fruition," says Keith Kemp, OSC chairman. "OSC continues to be a strong innovator and leader in funding research to develop soy bio-based products, and the soy toner project has been by far our biggest success."

Stake for BioPreferred

Another big step for biobased products is the adoption of a federal bioproduct buying and labeling process. Under the 2008 Farm Bill, the government is required to buy bioproducts when costs are comparable.

"The new administration has put a stake in the ground for BioPreferred," says Kate Lewis, deputy program manager, BioPreferred, for USDA. A letter from USDA to the Obama administration cabinet heads in May urged them to implement



LT. GOV. LEE FISHER



SEN. KAREN GILLMOR

the procurement requirements, she says.

The agency has listed 42 different product categories and has identified 3,700 different brands that could be considered. In addition, Lewis' department is formulating a federal eco label that will identify bioproducts.

"With a label we can increase the scope of the project to include education and outreach not just to consumers, but also to the commercial sector," she says. And USDA is "walking the walk" by selling Green Bottle Spring Water in its cafeteria and using Bio-Green fertilizer on the Whitten Building's lawn.

"It's an exciting time for bioproducts," Lewis says. "Groups like the Ohio Soybean Council have done some of the heavy lifting to get us this far, and now

beans and increased potential for the commodity crop.

"We are very gratified that our soy-based toner technology is being commercialized by our licensee, Advanced Image Resources, and their supply chain partners," says Rick Heggs, Battelle senior market manager.

"This technology represents a significant leap forward in providing the printer and copier industry with a high-performance bioderived toner with excellent image quality. This commercial introduction reinforces our belief that our alliance with the Ohio Soybean Council is critical to our efforts to bring new soy-based industrial products to market to benefit the Ohio agricultural economy in general and the Ohio soybean farmer specifically," Heggs adds.

Setting the tone

THE R&D 100 Award was presented to Battelle and the Ohio Soybean Council for a soy-based printer toner in 2003. Since then steps have been taken to license a manufacturer of the resin from which the toner is made and to find a company to package and sell the product.

Advanced Image Resources Inc. has licensed the new soy-based toner technology. The company manufactures the soy-based resin, called BioRez, which contains 60% biobased products. This resin is a vital component in the production of the toner.

"The introduction of

AgriTone culminates a multi-year effort by AIR to develop and bring to market a viable, environmentally friendly resin derived predominately from renewable resources," says Tom Gandolfi, cofounder and CEO of Advanced Image Resources.

West Point Products has released AgriTone premium replacement toner cartridges, a series of remanufactured laser toner cartridges containing toner that is 35% or more bio-based. In 2008, the company collected more than 900,000 cartridges through its Empty Core Collection Program and recycled more than 1 million pounds of raw materials from its manufacturing process.

Subsequent releases will expand the product line to include other popular small work group printers by leading manufacturers.

West Point says the soy-based toner does the following:

- increases the ease in which paper is recycled compared to petroleum-based toners, resulting in cleaner and brighter pulp for future use in a variety of secondhand products
- increases energy independence by alleviating the need for petroleum-based toner
- spurs economic development by increasing demand for existing agricultural products
- improves the environment by reusing existing processes and promoting the use of renewable biobased resources

According to Battelle, the 2007 worldwide toner market was \$17 billion. Using this figure, if the entire market were to utilize soy-based toner, 302.4 million pounds of soybean oil would be needed. This equates to 26.8 million bushels of soy-

Prisoners of petroleum

OHIO Lt. Gov. Lee Fisher is calling for a second industrial revolution to free America from its dependence on foreign oil. And he says bioproducts will play a major role.

"Bioproducts may be the most important thing we can do for our state," Fisher told the audience at the Ohio Soy 2020 conference in August. He claims the combination of Ohio's agricultural sector and the state's chemical polymer industry is just the combination needed to restore prosperity to the state.

Calling agriculture the state's single greatest asset, Fisher says we need to integrate farming with polymers, chemicals and manufacturing.

it's time to take the next step."

Ohio may take another step by creating its own procurement program similar to the federal requirements. Sen. Karen Gillmor, R-Marion, has introduced Senate Bill 131, a bio-preferred purchasing program for state agencies. She says it's all about looking to the future.

"Consumers want to be respectful of our environment, and now is the time to bring more attention to the new bioproducts," Gillmor says.

Volume 305 ■ Number 10

Contents

Ohio NewsWatch 1
 Opinion & Mailbox 10
 Crops..... 16
 Machinery & Technology .. 26
 Conservation..... 32
 Farm Management 38
 Livestock..... 42
 Marketplace Extra..... 48
 Buckeye Living..... 56
 Marketing..... 57

Contact us:

Editor: Tim White, twwhite@farmprogress.com
 117 West Main St., Suite 202,
 Lancaster, OH 43130

Contributing Editors:
 Tom J. Bechman, Alan Newport,
 John Otte, John Vogel, Arlan Suderman

Executive Editor: Frank Holdmeyer
Corporate Editorial Director:
 Willie Vogt

Sales: Tom Shearing, 585-476-2426
Subscription questions:
 800-441-1410

For additional sales and company information, see the last page of the Marketplace section.

POSTMASTER: Please send address corrections to *Ohio Farmer*, 255 38th Ave., Suite P, St. Charles, IL 60174-5410.