

# Farmers Grow Fuel Additive

By James D. Ritchie

**S**oyShield essentially turns No. 2 diesel fuel into No. 1 diesel," says Steve Ewart, of Ewart Brothers Farms, Liberty, Mo. "This is the second year we have added SoyShield to our fuel, and we have had zero problems."

Ewart is talking about a soy-based fuel additive developed by soybean checkoff dollars, through the National Biodiesel Board (NBB) and marketed by Schaeffer Manufacturing Company. With extensive testing, NBB and Advanced Fuel Solutions, North Reading, Mass., (a contract market development company) found that the additive improves fuel lubricity (lubrication capacity or slickness), boosts fuel efficiency and extends engine life.

"It also keeps engines cleaner," says Ewart. "We haven't had an engine apart since we began using SoyShield, but the lubricating oil stays cleaner. In fact, we have extended our oil-change interval considerably."

A little SoyShield can go a long way. Most SoyShield users buy fuel from their suppliers with the additive blended in. However, Ewart pours 10 gallons of SoyShield into his 5,000-gallon diesel storage tank, then his bulk oil supplier fills the tank with No.2 diesel fuel. SoyShield cost about 3 cents per gallon.

"At that ratio, SoyShield makes No. 2 diesel the fuel equivalent of premium diesel, which typically cost 5 to 7 cents more per gallon at the pump," says Jay Shields, executive vice president, Schaeffer Manufacturing Company, St. Louis, Mo. "Soybean oil provides the main part of the increased lubricity. We incorporate other additives to clean injectors, boost mileage and prevent fuel from jelling in cold weather. SoyShield boots fuel economy by up to 5 percent, which more than repays the cost of the additive."

Once the soy-derived additive was developed and tested, NBB looked for a company to merchandise the product. NBB representatives and Paul Nazzaro of Advanced Fuel Solutions, met with Schaeffer Manufacturing and Schaeffer's network of about 300 distributors.

"We produce and market a great many specialized lubricants; this fuel additive fits our product lineup very well," says Shields. "We called it SoyShield and decided to service the agriculture market first. It seemed logical to put SoyShield in the hands of farmers, since they grow the soybeans from which the additive is derived."



*Steve Ewart, Ewart Brothers Farms, Liberty, Mo., has been using SoyShield for two years with great success.*

In the three-plus years since SoyShield rolled onto the market, the additive has steadily gained acceptance, not only in agriculture but also in other industries. For example, the Nebraska Department of Transportation now uses SoyShield in all of its diesel-powered equipment. The North Dakota Transportation Department is studying the additive's use in highway equipment.

"We've had some sizable market breakthroughs in 2000," says Shields. "In one of the biggest, Koch Industries is spreading the soy gospel with a custom-formulated product throughout their wholesale distribution system." Koch distributes fuel and other petroleum products in most upper Midwest states.

Recently, Schaeffer began packaging SoyShield in 12-ounce bottles. "A bottle of SoyShield treats 50 gallons of fuel, about a standard tankful for a diesel pickup truck," says Shields.

The company has also developed a soy-based additive for gasoline and plans to bring it to market early in 2001. "This gasoline additive increases fuel lubricity by 40 percent compared with standard unleaded gasoline," says Shields.

In terms of bushels of soybeans, these soy-based fuel additives do not currently consume a great amount of soybean oil. But little things add up. On balance, soybean growers are getting a great return on their investment of checkoff dollars.

"The world seldom is won in a single sweep; it's gained by increments," says Mark Larson, Jasper, Mo., farmer and vice chair of the Missouri Soybean Merchandising Council (MSMC). "Perhaps one of the more important things about products like SoyShield is it introduces people to the benefits of soy in fuel. That makes it an easier step to go to higher percentages of soy in fuel."

*Editor's Note: For more information on SoyShield, contact Schaeffer Manufacturing at 102 Barton Street, St. Louis, MO 63104. Or see their website at [www.schaefferoil.com](http://www.schaefferoil.com).*