

TESTIMONIALS FROM MICHIGAN SCHOOLS USING SOY BIODIESEL

You may have heard about biodiesel once, twice, or three times, but have you done anything to increase your use of soy biodiesel...it's an American grown fuel!

One of Michigan's first school fleet success stories was that of the St. Johns Public Schools during 2002-2003. Wayne Hettler, Garage Foreman and Head Mechanic reported in one-year of B20 use in their 30 plus diesel bus fleet, they saved over \$1,700.00. Savings for St. Johns came from increased mileage, decreased oil change intervals which resulted in less oil and fewer filters needed, less fuel conditioner, and no fuel pump changes. Also note that the savings amount was even at a time when biodiesel was more expensive than regular diesel.

As a result of St. John's successes, Michigan's soybean farmers wanted to get the momentum going and encourage more districts to get on board using biodiesel. By providing both human and financial resources, the Michigan Soybean Promotion Committee was able to offer some assistance, literature, and signage to help schools across Michigan try soy biodiesel. A B20 (20% biodiesel/80% petroleum) blend was encouraged for emission reduction purposes. Below are testimonials from several Michigan schools on their experiences with soy biodiesel:

Bay City Public Schools (BCPS) -

Per reports from Tim Parent, Head Mechanic and Mike Gwizdala, Director of Transportation, BCPS recognized about a .1 MPG increase in their 51 buses which ran on biodiesel during a one-year period. This resulted in 1,800 gallons of fuel saved at \$1.97/gallon or \$3,546.00. They noticed that there was no more gray/blue haze in the lot. The mechanics

noticed differences such as less smell and emissions. All buses started when it was 15 degrees and below. BCPS began using biodiesel as an opportunity to be more environmentally friendly, reduce their dependence on foreign oil, and to support soybean farmers. Contact Mike at 989.662.4416 or gwizdalam@bcschools.net.



Catholic Secondary Schools of Greater Grand Rapids -

Six of their diesel buses used B20 as they fueled at stations which carried B20 at the pump. "There was virtually no cost difference between B20 and regular diesel," according to Greg Geese, Director of Transportation. "We'd use it in all our diesel buses if it would be available at the fueling sites for the rest of the buses." Contact Dauvan Mulally, Communications Director at 616.233.5987 or dauvanmulally@grcss.org.

Durand Area Schools -

Jim Neddermeyer, Head Mechanic at Durand Area Schools said, "We noticed our B20 powered buses started smoother in cold weather." Durand has 2 - 2,000 gallon above ground B20 tanks. Jim also noted, "We had no water and no gelling. There was nothing we had to do to change the fleet to biodiesel. We can stand behind the bus and don't get gassed out when it's running. We enjoy their new smell." They have 13 dedicated routes for 17 buses. They are going to keep fueling with biodiesel. Contact Bill Chapman, Transportation/Maintenance Supervisor at 989.288.5060 or chapman@durand.k12.mi.us.



Goodrich Area Schools - Dave Beckley, Bus Garage Mechanic, picked two buses at random which he fueled with B20 for three tanks then regular diesel for three tanks. Test bus "A" averaged 7.756 MPG on B20 and 6.718 MPG on diesel. Test bus "B" averaged 7.739 MPG on B20 and 6.432 MPG on diesel. They experienced no problems with biodiesel, did normal maintenance from the start on their 28 bus fleet, went from 9,000 to 12,000 mile interval on oil changes, a savings of \$800 on filters alone!



Overall comments included that the garage, yard, and fuel don't smell as bad, minimal cloud over garage, have had a lot less fuel problems, buses are running better, increased top speed on all buses, works fantastic, and they plan on sticking with biodiesel. Dave said, "It increased our fleet mileage and the suppliers are good to work with too!" Tried two different blends: 25% #1, 20% biodiesel, and 55% #2 and 15% #1, 20% biodiesel and 65% #2...both worked well. It's also interesting to note that 8 of Genesee Intermediate School Districts (GISD) buses fueled at Goodrich's pumps. No problems for any of GISD's buses either. Dave reported that another school district in the area has been watching how GISD's experiences were with biodiesel and may switch to biodiesel too. Contact Dave at 810.591.3453.



Napoleon Community Schools (NCS) - Jim Penn, Business Operations Manager for NCS, said that by the end of the calendar year, he would have normally received 3-4 complaints from nearby on the odor emitted during the warming of buses in the cold weather. They received "zero complaints...now that's a positive statement!" according to Jim. "There is no black smoke and the odor of

the B20 is more pleasant. I wasn't a believer until we used it." In their 15 IH chassis school buses, they experienced an increase in MPG from 7.3 to 8.2. Contact Jim at 517.536.8667 ext. 278 or penn@mail.ncs.k12.mi.us.

Olivet Schools - Had some challenges with their newer 2002 buses and smaller micron filters clogged. Replaced with larger micron filters. Didn't notice any difference on their oil analysis. Did notice the strong diesel lingering odor wasn't present which impressed the superintendent. For them, the cost is more per gallon and without documented savings, they went back to diesel. Sherry Sellen, Transportation Supervisor, noted with biodiesel, the cleaner smell and health benefits alone are better for the drivers, mechanics and kids. Olivet has 16 buses run by 12 drivers/5 subs on 12 routes. Contact Sherry at 269.749.4541.



Ovid-Elsie Area Schools - "We were faithful to do oil analysis every time on every bus. Went from 7,000 to 8,000 to 9,000 miles between oil changes. That resulted in seven less oil changes/year for a savings of \$435/year,"



according to Gary Munson, Head Mechanic. "We've not replaced a diesel injection pump/injector package since switching to biodiesel and we will continue using B20." They noticed there is no smoke, they've saved on rubber gloves for drivers to fuel buses, are using biodiesel for the health of students and drivers, less absenteeism, less maintenance costs, and are using a renewable resource to power their fleet of school buses...even the farmers in the area are wanting to use it now because "the schools are using it." Fuel economy has improved .1 -.4 mpg. for the entire fleet. Results of the study they did on lost days due to sickness in the Transportation Department and on a total of six bus riding students with asthma-related problems are available through the Transportation Department. Contact Frank Quine, Mechanic at 989.834.2271 ext. 1129 or quinejo@edzone.net.



Shelby Public Schools - Shelby uses over 1,000 gallons of fuel every two days and have on-site fuel storage. They experienced a fleet mileage increase from 6.46 up to 6.81 MPG with B20 use. Rod Stevens, Transportation Director, noted that the fuel mileage went up more on the newer buses than the older ones. No need to add in another lubrication additive as biodiesel served that purpose too, thus saving more money. Through oil analysis, Shelby extended their oil change intervals to 10,000 miles from 8,000. Their new IH buses can go 14,000. Shelby did need to put in a bigger fuel filter in a 1994 7.3 IH bus from a 2 to 10 micron.



Rod said, "When we line up to get the kids, the buses don't stink as much as they used to. And, a lot of farmers in the area have gone to biodiesel." They also understand the importance of receiving biodiesel fuel that meets the ASTM D6751 specifications. "We received one load of fuel that wasn't up to spec and we had some challenges. Our fuel supplier was supportive of helping us through that time period to empty tanks and restock us with quality of fuel we had come to trust." Contact Rod at 231.861.5171 or stevrm@shelby.k12.mi.us.

Tahquamenon Area Schools (TAS) - Geographically, this school district is the largest school district east of the Mississippi River at 1,000 square miles. The district's buses operate on many roads, in varying weather conditions, and some regularly travel up to 100 miles per day. TAS used biodiesel for a short two-month time period (November - December), not shortened because of fuel challenges, but due to staffing changes. During those two months, TAS reported they had excellent results with the biodiesel.

Traverse City Area Schools (TCAPS) - Ralph Altwies, Assistant Director of Vehicle Maintenance for TCAPS indicated that due to some traces of water in one of their three underground tanks, they were unable to start on biodiesel until they solved the initial challenge. Ralph commented, "We used B20 in 12 of our buses since April/May 2005 and had not experienced any problems during the changeover. I was anticipating the possibility of filter plugging during the changeover as I had been warned, but not even that. Our customer Bay Area Transportation Authority has been using our B20 in its entire fleet since mid July and all was well." Then in November, TCAPS received a batch of non-spec fuel causing filter plugging and a "jelly type substance" on the filters. TCAPS removed the non-spec fuel and began with biodiesel again in its fleet. Ralph can be contacted at 231.933.1924 or altwiesra@oper.tcaps.net.



Tuscola Intermediate School District (TISD) - Eric Koepf, Transportation Director for TISD indicated, "We continue to use B20 in our fleet as it is price competitive with diesel and we experienced several areas of cost-savings." Those savings and benefits included: no cold start issues, actually less starting problems when they switched to B20, repairs to motors have been down, no fuel filter or injector pump problems, and overall maintenance costs have decreased. Some of their busing is for wheelchair students so it's hard to tell mileage changes, but Eric said, "parents and staff commented that there was no odor." Some of their stops may take up to 10 minutes to unload. "That's a lot of time for diesel fumes to enter the bus and we'd rather they be cleaner for the student's health," said Koepf. "The health benefits to the students of using a cleaner burning fuel was all the reason we needed to make the change." TISD also had full support of their school board which happens to be 50% farmers. They were "gung ho" according to Koepf on going to soy biodiesel. Eric may be reached at 989.673.2144 ext. 401 or ekoepf@tisd.k12.mi.us.



West Branch Rose City Area Schools (WBRC) -

Butch Hart, Transportation Supervisor, had some troubles with a Cummins fuel pump in the winter. “We feels it was because the fuel is at the back of the bus. Once we lowered the biodiesel from B20 to B5 in December we had no more problems. Biodiesel also helped extend oil changes from 8,000 to 12,500. This was done through oil analysis.” Butch said their mileage also increased 1 - 1.5 miles on average and there’s no fume issues at schools any longer. Because of what the school is doing with soy biodiesel, a local trucking company has also changed to B5 fuel.

As far as comments from the mechanics...they’re still up in the air. They were the ones that had to deal with the fuel pump problems which occurred most frequently in the 15 Cummins ISB’s. They changed the lift pumps and dealt with the low fuel pressure. The mechanics do like the smell in the garage though! The school board is committed to biodiesel. There are farmers on the school board and think they’ll continue with biodiesel. Contact Butch at 989.343.2000 or hartb@mail.wbrc.k12.mi.us.



Zeeland Public Schools -

Dave Meeuwse, Transportation Director, said they’ve been using biodiesel since 2003. Biodiesel has been cheaper than diesel. The City of Zeeland, Fire Department, Board of Public Works, Police, and others fuel up at Zeeland’s tanks. All have had good experiences using the biodiesel. “We have 50 buses in our fleet,” said Dave, “which cover 94 square miles per day, 3,500 miles per day, and use 125,000 gallons of B20 per year.” The high school is known as a “green” high school. Well water heats the school, less grass to mow, more wildflowers, more sustainable power. They feel it’s only natural to “green” their fuel too by fueling with soy biodiesel. ZPS has not experienced changes in mileage, but have noticed significant tailpipe emission reduction. They’ve also extended their oil changes because of oil analysis done from 9,000 to 10,000 miles and may go more. They too experienced some low fuel oil pressure in a bus with a Cummins motor located by the rear axle. It was a 100 gallon tank. Contact Dave at 616.748.3426 or dmeeuwse@zeeland.k12.mi.us.



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Visit us at www.michigansoybean.org or the National Biodiesel Board at www.biodiesel.org. For more information call the MSPC at 989.652.3294 or the respective schools listed herein.

