

Semitrailer trucks like the ones that haul freight for Hy-Vee have historically averaged about 6 mpg.

The Hy-Vee fleet, which includes trucks driven by Perishable Distributors of Iowa, racked up 32 million miles in 2011.

Improved fuel mileage is important for financial as well as ecological reasons.

Rather than wait for fuel prices to drop, we have aggressively sought ways to burn less fuel through new technologies, alternative fuels—a dozen trucks now run on a diesel-propane mix—and smart operation.

We have been able to increase fuel efficiency by nearly .5 mpg.

The onboard computers track speeds and reduce idle times, while computer-controlled automatic transmissions control shifting to keep the engine in the optimum performance range.



Aerodynamics has been improved with specially designed skirts and wings that cut wind resistance and reduce drag, thus taking more strain off the engine.



Fuel efficient tires benefit from air pressure monitors that report to drivers when a tire is low.



And finally, the efficiency-robbing vortex created between the truck and tractor has been weakened by closing the gap between them.



The 12 rigs running the diesel-propane mix have seen a collective .5 to .8 mpg increase, equal to an 8 to 15 percent increase in diesel fuel economy. In addition:

- Horsepower has increased by 70.
- The amount of non-burned fuel lost in the exhaust stack has been significantly lowered. Typically, up to 25 percent of diesel fuel is lost. That figure has been cut to about 4 percent with the propane additive.
- The propane units are relatively inexpensive and easy to install, and driver acceptance is high.

“We do not see any negative impacts from the use of propane,” says Jim Moore, assistant vice president of transportation. “We are seeing 30 to 40 mpg on the propane, which in turn has increased the mpg on diesel by .5 to .8 mpg. Our goal is to improve fuel economy on each of our tractors in the fleet by 1 mpg.”

