



SUCCESS STORY

HANNAFORD TRUCKING COMPANY PORTLAND, ME

Hannaford Trucking Company (Hannaford), a subsidiary of Hannaford Bros. Co., enrolled their private delivery fleet of 101 tractors and 370 trailers in the SmartWay program in 2005. They provide retail delivery service to the 158 Hannaford Supermarkets in Maine, Massachusetts, New Hampshire, Vermont, and New York, and work out of three distribution centers, located in South Portland, ME, Winthrop, ME, and Schodack Landing, NY. In 2005 alone, Hannaford reduced emissions of carbon dioxide by 8,657 tons, particulate matter by 1.6 tons, and nitrogen oxides by 59.5 tons, and saved over 115,000 gallons of diesel fuel. Hannaford has and continues to achieve such success through a variety of equipment upgrades and changes, idle-reduction strategies and driver education.

Equipment Upgrades and Changes

- In 2006, Hannaford replaced 32 older tractors with 32 new Volvo tractors, which have improved cab aerodynamics and driver ergonomics. Through a combination of lighter materials and build specifications, Hannaford was able to reduce the gross weight of each unit by almost 400 pounds. These lighter tractors use fuel more efficiently, thus reducing emissions.
- 22 of the 32 new tractors are equipped with the Eaton automatic transmission. This helps with driver ergonomics as well as with consistently finding the best point for operating RPMs, improving engine efficiency.
- 8 of the new tractors have wide base tires, which are being tested for fuel efficiency and tread wear. Although this is a recent change, Hannaford is finding some efficiency gains, and expects even more when all tractors and trailers used together have the wide base tires.

Additionally, by making operational changes, Hannaford has been able to reduce overall miles on the road, fuel burned, and pollutants emitted:

- Hannaford saved over 83,000 gallons of fuel and reduced by 500,000 the miles-of-operation on the NY Thruway and the Mass Pike by switching to tandem-trailers in their NY distribution center.
- Hannaford Transportation and Retail leadership collaborated to adjust retail delivery schedules to optimize delivery load cubes and stops per load, which reduced annual fleet miles overall.
- All trailers have been set closer to the back of the tractor cabs to reduce air space between the two units and improve aerodynamic flow.
- All tractors have a speed control of 65 mph, cruise control and idle shutdown, whereby the truck shuts itself off after five minutes of idling.

Driver Education

- Hannaford trains new employees in proper trailer weight distribution practices. A retired driver works with newer employees to teach them the importance of even weight distribution throughout the trailer. By doing so, the trailer has less rolling resistance and gains efficiency during tractor operations. This practice has an estimated savings of over 16,000 gallons of fuel in one year.
- All Hannaford drivers are on a Gainshare incentive plan, where fleet efficiency targets are determined at the beginning of the year. The incentive has three fuel-efficiency goals and is developed for a team of drivers. In this team atmosphere, drivers work with each other to reach the goal, and are rewarded a pay bonus at the end of the year for efficiency gains. Using this program has saved over 16,000 gallons of fuel.
- The recent installation of on-board computers provides real-time data that allows Hannaford to better understand truck and driver functions as they happen. This is used with drivers as a coaching tool, to find ways to improve operations.

Future Plans

- All trailers will have wide base tires.
- Together with Great Dane trailers, Hannaford will work on creating trailer build specifications that will reduce trailer weight by approximately 2,000 pounds.
- Hannaford will continue to work closely with engine and drive line component manufacturers to test different gear ratios and tire characteristics, including size, materials, and tread design to further understand the most effective and efficient use of these for the Hannaford fleet and its geographic area of operation.
- Since May 2005, Hannaford has used B20 biodiesel (contains 20% non-petroleum diesel) in trailer switchers at their distribution centers. Biodiesel is a fuel that emits fewer pollutants when burned. More recently, Hannaford began testing biodiesel in two of their road delivery tractors to gain an understanding of fuel efficiency and engine operation “on the road.” In colder weather, they will test B5 biodiesel. If fuel efficiency and engine functions can be maintained, Hannaford will evaluate using biodiesel in more equipment.
- Hannaford also has great interest in exploring refrigeration unit technology and hybrid units, and technological advancement with hydrogen engines in class 8 vehicles.
- Hannaford is testing a fuel additive that induces a small chemical catalyst, causing fuel molecules to burn earlier at lower temperatures. The theory is that more energy is harnessed from each molecule, with greater efficiency while driving and fewer pollutants emitted post-burn. If this testing proves successful, Hannaford will try the fuel additive in more of the fleet.

Public/private partnerships such as the EPA's SmartWay program are very important for the transportation industry. Support from the SmartWay program is extremely valuable to Hannaford's ongoing mission to find innovative methods of reducing dependency on petroleum products and decreasing air pollution. Hannaford is a terrific example of how the SmartWay program can help companies find both fuel and economic savings, and improve environmental quality in the long term.

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