

Want More Miles Per Gallon From Your Vehicle?

Patrick T. Barrett
Director, UNL
Transportation Services

The University of Nebraska—Lincoln Transportation Services offers these fuel-saving driving tips.

- **Don't be an aggressive driver**—Aggressive driving can lower gas mileage by as much as 33% on the highway and 5% on city streets.
- **Avoid excessive idling**—Sitting idle gets zero miles per gallon. You should not warm up your vehicle more than 30 seconds. Generally the time it takes to start your vehicle, check your engine gauges/lights, adjust the seat and mirrors, and pull out of your parking stall is sufficient warm up time. Do not let your vehicle set idling to heat up or cool down the vehicle interior. If you are at a known extended stop light (60+ seconds), turn the vehicle off.
- **Avoid using drive-thru services**—Drive-thru services (banks, ATM's, food service, laundry, etc.) cause excessive idling and waste fuel. If you must use a drive-thru, turn your vehicle off while waiting in line or using the service.
- **Observe the speed limit**—Gas mileage decreases rapidly at speeds above 60 mph. To maintain a constant speed on the highway, cruise control is recommended. A passenger car that averages 28.5 miles per gallon at 60 mph, could typically get 27 mpg at 65 mph and 25.5 mpg at 70 mph. Remember, however, for different levels of speeds, the change in fuel economy will probably be different for different models, types and ages of vehicles.
- **Use cruise control**—Using the vehicles cruise control helps improve fuel economy and prevent speeding. Note: Vehicles with anti-lock (ABS) systems will disengage the cruise control on slippery surfaces should a tire begin to slip.



- **Empty your trunk**—Driving around with your trunk full adds weight and reduces your fuel mileage. Travel light, each 50 pounds of added weight results in a 1% reduction in fuel economy.
- **Keep your vehicle clean**—Dirt, mud and bugs on the exterior of your vehicle creates drag that over long distances hurts your MPG. Keeping your vehicle washed and

waxed reduces your vehicles aerodynamic drag, improving your fuel economy.

- **Use mass transit**—Fuel consumption can be dramatically reduced by using mass transit, ride the bus.
- **Share a ride or carpool**—Sharing a ride or carpooling helps reduce fuel consumption.

Fuel Savings Maintenance Tips

- **Vehicle gas caps**—About 17% of the vehicles on the roads have gas caps that are either damaged, loose or are missing altogether, causing 147 million gallons of gas to vaporize every year. Loose gas caps can result in a 2.0 mpg reduction in fuel efficiency.
- **Fill vehicle at slowest settings**—Always fill your vehicle with the fill nozzle set on the lowest setting. This will help prevent overfilling, or back splash.
- **Do not top off your fuel tank**—Topping off your fuel tank can saturate the emissions system with fuel, and could cause a fuel spill when the fuel warms up. When the fuel nozzle clicks off, the tank is full, don't add anymore fuel or round up the dollar amount on the fuel pump.
- **Under inflated tires**—When tires aren't inflated properly it's like driving with the parking brake on and can cost a mile or two per gallon.
- **Tire type**—Using mud and snow, or

wider than standard tires for added traction will reduce your miles per gallon. These tires are designed to add friction for traction, and the added friction requires more power (fuel) to compensate. *Note:* New tires have more resistance than worn tires. After installing new tires, you will probably experience a short term reduction in your vehicles fuel efficiency.

- **Worn spark plugs**—A vehicles spark plugs fire as many as 105 million times every 35,000 miles, resulting in heat, electrical and chemical erosion. A dirty or worn spark plug can misfire, which wastes fuel. At a minimum, engines should be tuned and the spark plugs replaced at the factory recommend intervals or more often for vehicles driven short trips only.
- **Dirty air filters**—An air filter that is clogged with dirt, dust and bugs chokes off the air and creates a "rich"

mixture (too much fuel being burned for the amount of air), wasting fuel and causing the engine to lose power. Replacing a clogged air filter can improve gas mileage by as much as 10%. *Note:* Vehicles with computer controlled fuel injection have sensors that automatically adjust for restricted air filters, keeping your fuel mileage consistent.

- **Defective oxygen sensor**—A worn or inoperative oxygen sensor will result in an engine that is not operating efficiently, resulting in increased fuel consumption or a decrease of 3.0 miles per gallon.
- **Change motor oil**—Not changing motor oil or using substandard engine oil can result in increased engine friction for a decrease of 0.4 mpg. If all of the above maintenance items are neglected, the result could be an overall loss of 10 miles per gallon.

Fuel Saving MYTHS

Myth—Filling your car up in the morning when the weather is hot will net you additional fuel is a false statement. Unless the fuel is stored in above ground tanks, the fuel remains at a fairly constant temperature and does not expand or contract with the ambient temperature.

Myth—Filling your vehicle with higher octane fuel provides better fuel mileage is a false statement. Octane ratings do not indicate the energy content in the fuel; they only provide a guideline for the ability to resist detonation (engine ping). Most modern vehicles have engine controls that will allow vehicles to operate on lower than factory recommended octane levels.

Myth—The gas from all fuel stations is the same. Generally this statement is true, but a few discount independent fuel stations sell low grade fuel that is termed "slop." All motor fuel (gasoline, diesel, jet fuel, etc.) is transported in the same pipeline. A small amount of fuel between fuel types is mixed with the previous

fuel type and this fuel is dumped into a slop tank and sold to fuel vendors at discounts. You might be purchasing a higher grade fuel, or lower grade fuel. Name brand fuels do add detergents or other additives to their fuel, but generally these additives do not affect the vehicles fuel mileage.

Myth—Placing a cow magnet on the fuel line near the engine will improve fuel economy is a false statement. If a magnet on the fuel line reduced fuel consumption, vehicle manufacturers would list this as a factory option or standard equipment.

Myth—Fuel mileage can be improved by placing a special device in the air filter or air intake that will create a whirlwind, mixing the air and fuel better.

Myth—Fuel additives (octane boosters, fuel line antifreeze, etc.) improve your fuel economy. Fuel additives may help with vehicle performance, but do not improve the vehicles fuel economy. Taking advantage of the added power from octane boosters will generally reduce your miles per gallon.

EXTENSION NEWS

New Staff at Extension



Chris Rosenthal has recently joined UNL Extension in Lancaster County as a Repair and Cleaning Worker. Chris' duties include maintenance and upkeep of the facility. Welcome to the office, Chris!

Fruit & Veggie Bites

continued from page 4



Bite 5. Wash fruits and vegetables correctly.

The Food and Drug Administration recommend the following preparation tips for fresh produce (http://www.fda.gov/fdac/features/2007/207_foodsafety.html, retrieved 6/30/2008):

- Many pre-cut, bagged produce items like lettuce are pre-washed. If so, it will be stated on the packaging. This pre-washed, bagged produce can be used without further washing.
- As an extra measure of caution, you can wash the produce again just before you use it. Pre-cut or pre-washed produce in open bags should be washed before using.
- Begin with clean hands. Wash your hands for 20 seconds with warm water and soap before and after preparing fresh produce.
- Cut away any damaged or

bruised areas on fresh fruits and vegetables before preparing or eating. Produce that looks rotten should be discarded.

- All unpacked fruits and vegetables, as well as those packaged and not marked pre-washed, should be thoroughly washed before eating. This suggestion includes produce grown conventionally or organically at home, or produce that is purchased from a grocery store or farmer's market. Wash fruits and vegetables under running water just before eating, cutting or cooking.
- Even if you plan to peel the produce before eating, it is still important to wash it first.
- Washing fruits and vegetables with soap or detergent or using commercial produce washes is not recommended.
- Scrub firm produce, such as melons and cucumbers, with a clean produce brush.
- Drying produce with a clean cloth towel or paper towel may further reduce bacteria that may be present.



Bite 6. Separate fruits and vegetables from these foods.

"Keep fruits and vegetables that will be eaten raw separate from other foods such as raw meat, poultry or seafood—and from kitchen utensils used for those products," advises the Food and Drug Administration (FDA). FDA gives these additional recommendations (http://www.fda.gov/fdac/features/2007/207_food-safety.html, retrieved 6/30/2008):

- Wash cutting boards, dishes, utensils and countertops with hot water and soap between the preparation of raw meat, poultry and seafood products and the preparation of produce that will not be cooked.
- For added protection, kitchen sanitizers can be used on cutting boards and countertops periodically. Try a solution of one teaspoon of chlorine bleach to one quart of water.
- If you use plastic or other nonporous cutting boards, run them through the dishwasher after use.