

Defending biodiesel

The publishing of the recent article, "Let the Bio Beware," (March 2006) disheartened me. It was filled with several inaccuracies about biodiesel and I would like to attempt to set the record straight.

- Firstly, I would like to clarify that biodiesel is not "commonly a ratio of soybean oil to diesel or heating fuel." Biodiesel is not the same thing as straight soybean oil and it does not contain any petroleum. This is a critical distinction. Straight vegetable oil is not a legal fuel and is known to cause engine damage.

- The statement that "Each batch of biodiesel varies in quality" is off-base. Every batch of biodiesel must meet the ASTM D 6751 standard. As long as it meets that standard, it will be a quality fuel. Users should request biodiesel from BQ-9000 accredited producers and certified marketers for added confidence that they are receiving a spec fuel. This voluntary quality-control program helps ensure that a company is taking measures to ensure that only biodiesel meeting the specification is sold.

- The statement that "...there are many documented and reported problems with its use..." is not accurate. Virtually all of the "problems" reported are due to use of materials that are not biodiesel, or in some cases where biodiesel did not meet specifications. Hundreds of fleets use B20 and the vast majority of users have had a seamless transition to the fuel. Biodiesel blends have performed flawlessly in more than 60,000 road miles.

- "Biodiesel is known to act as a detergent when first introduced into existing storage tanks. It will disperse any old sludge that has settled to the bottom of the tank and has caused massive filter-plugging problems." This criticism is vastly overstated. Fuel filters on the vehicles and in the delivery system may need to be changed more frequently upon initial B20 use. Biodiesel and biodiesel blends

have excellent cleaning properties. The use of B20 can dissolve sediments in the fuel system and result in the need to change filters more frequently when first using biodiesel until the whole system has been cleaned of the deposits left by the petrodiesel. This is a normal maintenance precaution and one of the few that B20 use requires. However, off-spec biodiesel can cause filter plugging on a more frequent basis. That's another reason why fuel quality is so important. Buy only from reputable companies, preferably with the BQ-9000 seal of approval.

- The statement that B20 has a "...miles-per-gallon decrease from .5 to 1 mile per gallon" is reactionary. That small difference in miles per gallon is considered statistically insignificant. Additionally, when ultra-low-sulfur diesel becomes commonplace, there is reason to believe that ULSD will have decreased BTUs. Energy content and mileage with ULSD and biodiesel will become even narrower.

- "There is no standard quality-control test for the soybean oil producers, so the finished quality varies significantly." This is like blaming a poor-quality paper on the tree. Biodiesel made from any fat or vegetable oil is capable of meeting the ASTM standard. Some feedstocks need more preparation and refinement than others do, but all that matters in the end is the final product meets the ASTM standard.

- "Biodiesel wants to absorb water and hold onto it as a milky emulsion which can form ice at cold temperatures and cause operating problems. Water in biodiesel may be in either the emulsion or free form, and in either form, may promote the growth of bacteria and fungi." Since when is water a welcome addition to fuel tanks of any sort? The science may be counterintuitive, but stored B20 is no more likely to grow bacteria and fungi than regular diesel. Water should be kept out of all tanks, diesel and biodiesel alike. B20 and lower blends do not hold any more water than diesel fuel...no water, no bugs.

- "The most common form of biodiesel, B20, does not flow very well in cold weather. It will form a thick and cloudy biomass at temperatures around 50F." This is inaccurate. Simply be aware of

B20's cold-weather properties and take appropriate precautions. When operating in winter climates, use winter-blended diesel fuel. If B20 is to be used in winter months, handlers need to make sure the B20 cloud point is adequate for the geographical region and time of year the fuel will be used.

- The author confuses biodegradability with stability. Biodegradability is a good thing, it's part of what makes biodiesel more environmentally friendly. It's not connected to stability. As for stability, the National Biodiesel Board recommends that all biodiesel and biodiesel blends be used with six months or treated with a proven stabilizer suited for biodiesel.

When it meets the standard and is properly handled, biodiesel will perform trouble-free in any diesel engine. Production tripled

last year to 75 million gallons, making it the fastest growing alternative fuel in the nation. When ever something new becomes successful, there are those who will try to tear it down. Fortunately, biodiesel has more than a decade of thorough third-party testing, wide-scale use and growing consumer acceptance behind it. On behalf of the National Biodiesel Board, which I serve as the petroleum industry liaison, I would appreciate your support in enabling *Fuel Oil News* readers to hear the other side.

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