

JUSTIFICATION

The future outlook for the biodiesel industry looks promising. Biodiesel is obtained from vegetable oil through a simple refining process. Feedstock include soybean - currently the largest crop grown in Argentina by over 100,000 agribusiness from 8 different provinces.

Biodiesel is safer to use than petroleum diesel. The flash point (the point at which fuel ignites) for biodiesel in its pure form is higher than 300°F versus about 125°F for petrodiesel. Though fires are unusual in mines, biodiesel help reduce the risk of fire.

The use of biodiesel and biodiesel blends results in a significant reduction of suspended particulate emissions, which are presumed to be carcinogen. A 27% reduction in PM emissions and a 73% reduction in carbon monoxide and unburned hydrocarbon emissions were identified using B20 blends and catalytic converters. Reduced sulphur and aromatic hydrocarbon emissions were also observed.

Biodiesel exhaust is less offensive and thus suitable for use in confined areas. In fact, equipment operators have compared it to the smell of french fries. Users also report having no eye irritation. Since biodiesel is oxygenated, diesel engines have more complete combustion with biodiesel than with petroleum.

Biodiesel does not require special storage. In fact, in its pure form or in blends, biodiesel can be stored wherever petroleum diesel is stored, except in concrete-lined tanks. At higher blend levels, biodiesel may deteriorate natural rubber or polyurethane foam materials. Biodiesel also has a higher flash point, handles like diesel and is safe to transport.

No engine changes are required. The performance and consumption levels of biodiesel are the same as petrodiesel's. Additionally, more than 100 biodiesel demonstrations have logged more than 10 million road miles with biodiesel blends. No engine failure as well as reduced and harmless exhaust emissions were identified in these tests with biodiesel blends.

Biodiesel is easily biodegradable. In tests performed by the University of Idaho, biodiesel in an aqueous solution after 28 days was 95 percent degraded (the same as sugar). Diesel fuel was only 40 percent degraded.

Biodiesel has higher lubricity. At the 20 percent blend level, biodiesel shows improved lubricity with low sulfur petroleum diesel containing high or low aromatic levels. Start-up, power, range and cold-weather performance characteristics are similar to diesel. No changes to torque, horsepower or consumption were identified.

Users may prepare their own blends easily before use. No special handling precautions are required as the blend is stable.

Biodiesel is now used in urban transportation, freight, airport transport, national parks and marine operations in the US. The strong biodiesel demand from Germany has significantly increased canola grinding operations. As a result of increasing prices and heavy sales taxes, biodiesel can now be sold at a lower price than petrodiesel. Biodiesel demand is increasing due to the low canola oil price and the preferential tax treatment available to biodiesel producers.