Growing Biodiesel in Canada

by Dr. Martin J.T. REANEY, SAP Chair, Lipid Quality and Utilization, University of Saskatchewan

The Canadian market for biodiesel is beginning to grow. While Canadian manufacturers have been slow to initiate biodiesel production there has recently been considerable progress on several fronts. The Canadian General Standards Board (CGSB) is debating a future diesel fuel specification and this will include allowances for the use of biodiesel in fuel. In the meantime as an interim step Canada has adopted the US ASTM (American Society for Testing and Materials) standard of biodiesel quality. Depending on the standard adopted some oils may not be useful in biodiesel production. The European standard limits the iodine value (<120) and would eliminate the use of sunflower oil and soy oil from use as a component in biodiesel while the American standard will limit the use of high erucic acid oils.

Virtually all federal and provincial political parties have expressed the need to include biofuels in their policy platforms. The federal government has been promoting a renewable fuel standard policy that will see biofuels used at a rate of 5% in all transport fuels by 2010. It will require at least 1.25 billion L of biodiesel to meet the projected fuel demand if biodiesel is used as the renewable component of Canadian diesel fuel. This could require as much as 2.6 million tonnes of canola seed for the Canadian market and would require the dedicated use of 1.9 million hectares of land (based on long term average yields).

The Engine Manufacturers Association recommends using biodiesel at low levels (<5%) in blends with conventional diesel fuel as long as the combined fuel meets the prescribed standards. In short, there is broad support for including biodiesel in diesel fuel. Until recently it would have been impossible to produce biodiesel at a reasonable cost when compared with diesel fuel. With the comparatively lower prices of canola seed in the marketplace and the high price of petroleum oil it appears that canola biodiesel can be competitively manufactured and sold in competition with diesel fuel.

Canadian manufacturers are now beginning to move on plans to produce biodiesel in Canada for the Canadian diesel fleet. While existing Canadian biodiesel production was from rendered products new plans are being announced to produce biodiesel from oilseeds. The trends may lead to a future where most Canadian diesel fuel contains biodiesel by 2010 and that a considerable portion of this oil is from oilseed crops.