



“Ocean, Forest & Field – the Bioenergy Playground”

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Growing Your Own Fuels on Farm: Development of On-farm Biodiesel Production

Bio-diesel is renewable, bio-degradable, non-toxic, and can be used directly in diesel engines without any modifications. It is an excellent substitute for petro-fuels to mitigate the steady depletion of fossil fuels and the negative impacts of the extensive use of fossil fuels on the environment. However, in Canada, dominant feedstocks for commercial biodiesel production are edible oils obtained from soybeans and canola. These compete with food and feed supply, raising a heated debate on “fuel vs food”. It is essential to develop energy crops outside the food chain that may be grown in marginal land with less water and nutrient requirements. Camelina is one of such promising energy crops suitable to cultivation conditions in North America. Development of camelina biodiesel offers farmers an opportunity to reduce energy cost, add revenue stream to farms, and move toward on-farm energy self-sufficiency. It also strengthens and diversifies the agricultural sector, and contributes to the transition from the petroeconomy to the bioeconomy.