Industry opportunity: Company searching for expert in corn ethanol processing

The Industry Liaison Team was recently approached by a Toronto-based manufacturer of liquid purification and treatment solutions, founded in 2013. Their technologies help businesses, industries and communities address their unique challenges and help improve safe and sustainable business practices for Canada and beyond.

Current opportunity:

Ethanol reduces emissions of carbon monoxide, particulate matter, toxic chemicals, and greenhouse gasses - resulting in better overall air quality than when cars burn conventional gasoline. Overall, ethanol is considered to be better for the environment than traditional gasoline. For example, ethanol-fueled vehicles produce lower carbon dioxide emissions, and the same or lower levels of hydrocarbon and oxides of nitrogen emissions. A technology to help improve ethanol quality and reduce production costs could be beneficial to the ethanol industry, during the upcoming transitional period between traditional burning of fossil fuels and a full EV economy. The company in question proposes a technology for the purification of corn-based ethanol to remove impurities, such as azeotropes, which cannot be removed through distillation alone. This system could potentially improve production, increase fuel quality (octane) and potentially reduce greenhouse gases. The purpose of a potential collaboration with academia would be to:

- further develop the technology readiness level of the existing system
- investigate treatment applications to purify the fuel grade ethanol to pharmaceutical and beverage grade ethanol in an affordable / feasible way for industrial use
- provide consulting and expertise on additional opportunities this technology may provide for the corn processing industry.

This technology is expected to help the corn milling and ethanol industry and provide an opportunity for improving the long- term sustainability of corn growing and processing.

If you have an interest in learning more about this opportunity or connecting with the company for potential collaboration, please reach out to Blake Helka, Industry Liaison Officer at bhelka@uoquelph.ca

Alert Classifications **Category:**Knowledge Mobilization and Commercialization

Disciplines:

Physical Sciences and Engineering

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