

## Turning waste from whisky-making into fuel—Close to commercial reality?

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A start-up company in Scotland is working to capitalize on the tons of waste produced by one of the country's most valued industries and turn the dregs of whisky-making into fuel. Celtic Renewables, formed in 2011, has refined its process based on a century-old fermentation technique and is now taking the next step toward a commercial plant, according to an article in *Chemical & Engineering News (C&EN)*, the weekly newsmagazine of the American Chemical Society.

Ann M. Thayer, a senior correspondent with C&EN, points out that making whisky requires three ingredients: water, yeast and a grain, primarily barley. But only 10 percent of the output is whisky, and the rest is waste. Each year, the industry produces 500,000 metric tons of residual solids called draff and 1.6 billion liters of a yeasty liquid known as pot ale. These by-products are usually spread on agricultural lands, turned into low-grade animal feed or discharged into the sea.

Rather than inefficiently re-using these materials or letting them go to <u>waste</u>, Celtic Renewables has taken an old industrial process developed to turn molasses and other sugars into chemicals and fine-tuned it to convert draff and pot ale into acetone, 1-butanol and ethanol. The latter two can be used as <u>fuel</u>. The company is scaling up its process with the help of the U.K. Department of Energy & Climate Change, private funds and Bio Base Europe. If all goes well, a commercial facility could be next.

More information: "Well-oiled Remedy"



## cen.acs.org/articles/92/i42/Ce ... Opts-Well-Oiled.html

## Provided by American Chemical Society

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