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## Report says global warming could impact whiskey makers

Nashville Business Journal - July 28, 2006 by [Mike Stuhlreyer](#) Special to the Nashville Business Journal[Print this Article](#) [Email this Article](#) [Reprints](#) [RSS Feeds](#) [★ Most Viewed](#) [★ Most Emailed](#)

A recent poll by the Pew organization gauged Americans' level of concern about global warming and found just 19 percent say they're worried a great deal about climate change, while 47 percent say they're worried only a little or not at all.

Environmentalists at the **Natural Resources Defense Council** hope to shift those percentages, and believe one way to do it is by localizing the problem.

The NRDC generated quite a stir among Internet bloggers of late by publishing a report in its OnEarth Magazine that postulated a projected three degree rise in Kentucky's and Tennessee's average temperatures in coming years might threaten the quality of Kentucky bourbons and Tennessee whiskeys.

The report, authored by Bruce Stutz, Contributing Editor of OnEarth Magazine and former editor in chief of Natural History Magazine, is based on a study commissioned by the state of Kentucky to gauge the impact warming could have on that state's economy.

"I read about the study and thought this would be an interesting way to look at global warming. It's not the most urgent and pressing issue in regard to climate change, but it does make it understandable," says Stutz.

Tennessee whiskey is stored in charred oak barrels during the aging process. Proper maturation depends on the barrels' temperature-induced expansion and contraction, which alternatively forces the whiskey in and out of small pores in the wood. Over a period of years, that process contributes to the whiskey's distinctive flavor and color.

Since two major distilleries in Tennessee, **Jack Daniel's** in Lynchburg and **George Dickel** in Tullahoma, are the only distilleries left that still age their barrels in un-air-conditioned warehouses, the report theorizes that if natural temperature changes are altered, the expansion and contraction of the barrels will change, impacting the products' quality.

"My point was that, if global warming gets to the point where there is less of a difference between colder and warmer periods, then it would be like trying to make Tennessee whiskey in Florida," says Stutz.

But Greg Leonard, public relations director of Global Rums American Whiskeys for George Dickel's parent company, **Diageo** (NYSE: DEO), says temperature variation is only one factor that differentiates Tennessee whiskey.

"Ask anyone in the whiskey business, and they'll tell you there are a number of reasons Tennessee Whiskey can only be made in Tennessee. There's a lot that goes into making whiskey prior to the aging process. It all starts with water, and Tennessee sits on a limestone dome and limestone generates wonderful spring water."

There's also the quality, quantity and proportions of grains - corn, rye and barley - as well as the yeast to consider. With all those variables in the mix, Leonard believes its tough trying to determine the impact of global warming on whiskey as it ages.

"Variance in temperature is just one component. In Scotland, for example, where they make fine whiskey, the variance in temperatures between the hot and cold season isn't that dramatic, and it happens to be colder much longer than hotter. So the whiskey just needs to stay in the barrel longer, because you aren't getting that huge temperature variance," says Leonard.

Roger Brashears Jr., spokesman for Jack Daniel's, points out that the temperature variation in Tennessee is perfect for aging.

"Our median temperature is somewhere in the 70s. Pores in the wood start expanding when it gets to 70 degrees or warmer, and they start contracting below seventy," he says. "If the weather never got under 70 degrees Fahrenheit, then we'd have a problem, but as long as it gets below 70 degrees, it won't give us any problems at all."

According to the Kentucky study, the average temperature in Frankfurt, Ky., has increased 1.4 degrees Fahrenheit in the last century, and by 2100 the average temperature in the region could increase 3 degrees in all seasons - slightly less in summer. Measurements show that winters are milder and the spring season has advanced by 7 to 10 days from what it was 30 years ago.

But regardless of the sciences of global warming and whiskey-making, and the debate about the interplay between the two, the Stutz report did achieve one important goal: "Lots of people responded to it, and so by that nature it did strike a nerve."

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