Federation of Quebec Maple Syrup Producers

Press release
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Could Maple Syrup be a Better Choice in Controlling Blood Sugar?

New Animal Laboratory Studies confirm that not all Sugars are Created Equal

New York – March 18, 2014 – There is more good news about pure maple syrup. Researchers from the U.S., Canada, Mexico and Japan joined together on March 16th at the annual meeting of the American Chemical Society (ACS), in Dallas, Texas, for a full-day symposium devoted to a number of studies that examined potential new health benefits found in maple syrup and other natural sweeteners. One study found that maple syrup from Canada does not cause the same spike in blood insulin levels as some other sugars in tests performed with laboratory animals. The scientists reported this, and other new promising data, that have implications for both healthy individuals and those suffering from Type 2 diabetes and metabolic syndrome, which is a collection of heart disease risk factors used to describe a cluster of conditions, such as high blood pressure, abnormal cholesterol levels, increased blood sugar and excess body fat around the waist, that occur together.

The session was organized and chaired by Dr. Navindra Seeram, associate pharmacy professor at the University of Rhode Island and a leading scientist in the maple syrup research field. When collectively reviewed, these research findings suggest that maple syrup's unique cocktail of constituents may be the source of new health benefits. These findings may help support discoveries made over the past few years on the inherent properties of pure maple syrup that comes directly from the sap of the maple tree, making it an all-natural product with unique health benefits.

Dr. André Marette from Laval University, Quebec, Canada, presented results from the very first animal studies comparing maple syrup's potential effect on blood sugar to other types of sweeteners, including sucrose (commonly known as table sugar). "These in vivo studies showed that rats fed with maple syrup did not have as much of a spike in blood sugar levels when compared to rats fed with sucrose," noted Dr. Marette. "The next step is to repeat this study in humans. While more research is needed, our findings may help people at risk for metabolic syndrome to make better choices when selecting a sweetener for their daily intake. We know today that not all sweeteners are created equal when it comes to glucose control and insulin resistance."

Scientists from Japan also contributed to the symposium. "While more research is needed, our preliminary findings also suggest that maple syrup may have a positive effect on metabolic syndrome and could play a role in the prevention of it," said Dr. Keiko Abe from the University of Tokyo. Using

nutrigenomics to study how nutrients affect our body's genes, Dr. Abe analyzed the effects of maple syrup extracts with varying levels of polyphenols. Mice with Type 2 diabetes that were fed a maple syrup extract showed improved insulin sensitivity, increased breakdown of fats in the blood and better regulation of body weight compared to animals on a control diet without maple.

Identified less than 20 years ago, metabolic syndrome is widespread. The American Heart Association reports that 47 million Americans, or one in six people, have it. Metabolic syndrome is related to insulin resistance, believed to run in families and, according to the American Heart Association, is more common among African-Americans, Hispanics, Asians and Native Americans. Type 2 diabetes is the most common form of diabetes affecting more than 380 million people worldwide, according to the International Diabetes Federation (IDF).

Drs. Marette's and Abe's studies were conducted on the heels of scientific discoveries made by Dr. Seeram over the past three years. In 2011, Seeram's work unearthed 54 polyphenols in maple syrup, some of which boast similar antioxidant benefits to those compounds found in red wine, berries, tea and flaxseed. This year, his lab identified nine additional compounds with antioxidant properties and potential health benefits, bringing the total count of phytonutrients known to date to 63. "Pure maple syrup from Canada has a unique chemistry and combination of natural compounds," said Seeram. "The synergistic effect among the multiple constituents found in maple syrup could be the reason for the potential health benefits of this sweetener. I am excited to see the results from human trials."

Serge Beaulieu, President of the Federation of Quebec Maple Syrup Producers, is encouraged by the comparative studies presented at ACS: "We are optimistic to understand more about the potential health benefits of maple syrup in the next few years. Dr. Marette's and Dr. Abe's animal studies, in addition to the new polyphenolic compounds found in Dr. Seeram's lab, pave the way for human studies, which we plan to start next," said Beaulieu.

The Federation of Quebec Maple Syrup Producers does not promote an increase of sugar consumption. When choosing a sweetener for moderate use, pure maple syrup has more healthful compounds compared to some other sources of sugar.

ABOUT THE FEDERATION OF QUEBEC MAPLE SYRUP PRODUCERS

The Federation of Quebec Maple Syrup Producers was founded in 1966 with the mission of defending and promoting the economic, social and moral interests of its 7,400 maple family farms and businesses. These men and women are working together to collectively create quality standards, knowledge and market their products. Quebec is responsible for 93 percent of the Canadian production and close to 80 percent of today's global maple syrup output. Ontario, New Brunswick and Nova Scotia contribute 7 percent of the total Canadian production. The Federation is proud to lead the International Innovation Network on Maple Products from Canada in the name of the entire Canadian maple syrup industry.

For more information, please visit purecanadamaple.com or ilovemaple.ca.

The University of Rhode Island's research grant was funded by the *Conseil pour le développement de l'agriculture du Québec* (CDAQ) and the Federation. Funding of CDAQ is provided through Agriculture and Agri-Food Canada's Advancing Canadian Agriculture and Agri-Food (ACAAF) program.

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-30-

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