
Newly licensed by Verdure Sciences, Maplifa™ is an extract from red maple leaf, and according to researchers at The University of Rhode Island, might help slow down the process of skin aging.

Navindra P. Seeram, PhD, and researchers from the Department of Biomedical and Pharmaceutical Sciences at the University of Rhode Island have been studying the chemical composition of sugar maple and red maple trees for their therapeutic benefits. In 2017, they uncovered how the prebiotic properties of maple sap could combat chronic inflammation, liver disease, and metabolic syndrome by supporting the growth of healthy bacteria and restoring gut flora balance. It was after this study that Seeram began to speculate about other parts of the maple tree and potential health benefits that they may hold.

"You could imagine that these extract (Maplifa) might tighten up human skin when applied as a topical application," says a confident Seeram.

Here's how it works.

Proteins such as collagen and elastin help reinforce connective tissues, giving youthful skin its smooth, supple appearance and ability to maintain this shape. But as we grow older, our bodies begin looking for new and underused sources of protein, causing the pancreas to release an enzyme known as elastase—the purpose of which is essentially to digest elastin.

"We wanted to see whether leaf extracts from red maple trees could block the activity of elastase," describes Hang Ma, PhD, from the University of Rhode Island.

According to Ma and his group's findings, presented at the 256th National Meeting & Exposition of the American Chemical Society, certain phenolic compounds extracted from maple leaves have the potential to decelerate and even prevent the elastase enzyme's breakdown of elastin.

In previous studies conducted by Seeram and team, these incredible compounds called glucitol-core-containing gallotannins (GCGs) show even more promise than the inhibition of elastase. GCGs may also act as protective agents against inflammation, age spots and freckles, and could even lighten unwanted dark spots. Moreover, if maple leaf extracts are as successful as Seeram anticipates, Maplifa could greatly improve the livelihoods and increase the incomes of US and North American farmers. "Many botanical ingredients traditionally come from China, India and the Mediterranean," Seeram explains, "but the sugar maple and the red maple only grow in eastern North America."

And because the leaves of maple trees could be harvested during their natural autumn pruning, Maplifa is not only economically beneficial, but environmentally friendly and sustainable, too.