

# Research could have a green solution for food safety

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Mango kernels, normally thrown away, could help keep food safe.

(PhysOrg.com) -- Life in the fruit bowl is no longer the pits, thanks to a University of Alberta researcher.

Christina Engels has found a way to turn the throwaway kernels in mangos into a natural food preservative that could help prevent Listeriosis outbreaks like the one that killed 21 Canadians last year.

The findings can also apply to other [fruit](#) seeds like grapes, said Engels, who conducted the research to earn her master's degree from the Department of Agricultural, Food and Nutritional Science at the U of A.

Tannins, a plant component extracted by Engels from otherwise useless

mango kernels, have proven inhibitory effects against various strains of bacteria including *Listeria*, a potentially deadly pathogen that infected some packaged meats and caused an outbreak of disease in Canada in 2008.

"You could put the extract in the water that you use to wash fresh-cut lettuce," she said. "Or, you can put it directly in food-like dairy products or fruit juices as a natural preservative."

Engels' research focuses on a way to recycle the wood-like mango kernels, which are usually thrown away or burned. "By processing the kernels for their tannins, businesses have a way to completely utilize all fruit parts and therefore increase their profit," she said.

Currently, mangos are one of the main fruits marketed globally, ranked fifth in world production among the major fruit crops. And, with current market trends leaning towards natural and organic products, Engel hopes to see her research through to store shelves.

"I can see this product from all-natural sources having a real impact on consumers," she said. "I'm not saying that other products aren't any good. The mango extract will have to go through all the same health and safety restrictions as any other product on the market, but I think people are more interested now in products that come from nature."

Provided by University of Alberta ([news](#) : [web](#))

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