Mango seeds may protect against deadly food bacteria

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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. The research is published in the latest Journal of Agricultural and Food Chemistry.

Pure tannins, a plant component extracted from otherwise useless mango kernels by Engels, 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.

Engels' research focuses on a way to recycle 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.

More information: http://pubs.acs.org/doi/pdf/10.1021/jf901621m

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