## Antioxidant-rich corn could mitigate symptoms of inflammatory bowel disease, study finds

Flavonoids from a specific line of corn act as anti-inflammatory agents in the guts of mice with an inflammatory-bowel-disease-like condition, according to a team of researchers who said flavonoid-rich corn should be studied to determine its potential to provide a protective effect on human health.

The researchers bred a novel line of corn at Penn State's Russell E. Larson Agricultural Research Center to produce compounds called flavan-4-ols. The team then conducted an experiment with mice to judge the effect of those powerful antioxidant compounds on induced inflammation of the colon.

"In this study, we utilized two corn lines — one containing flavan-4-ols and one lacking flavan-4-ols — to investigate the anti-inflammatory property of that flavonoid," said Surinder Chopra, professor of maize genetics in the College of Agricultural Sciences, Penn State. "They are near isogenic lines, meaning that their genetic makeups are identical except for a few specific genetic loci that are responsible for generation of the flavonoids."

According to the researchers, inflammatory bowel disease, often referred to as IBD, is a chronic intestinal inflammatory condition that awaits safe and effective preventive strategies. Naturally occurring flavonoid compounds are promising therapeutic candidates against IBD due to their great antioxidant potential and ability to reduce inflammation and leaky gut syndrome.

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In findings recently published in Nutrients, researchers reported that mice consuming a corn-based diet with flavan-4-ols exhibited alleviated IBD-like symptoms resulting from the protective effect of flavonoids against colonic inflammation by restoring intestinal barrier function. The study .... provides a rationale for breeding for flavonoid-enriched cultivars for better dietary benefits.

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