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**Czech J. Food Sci.**

**Wong Y.-H., Tan Ch.-  
P., Long K., Nyam K.-  
L.:**

***In vitro* simulated  
digestion on the  
biostability of *Hibiscus  
cannabinus* L. seed  
extract**

Czech J. Food Sci., 32 (2014): 177-181

We investigate the biostability of phenolic acids from a kenaf (*Hibiscus cannabinus* L.) seed extract using an *in vitro* model simulating the physicochemical (pH, temperature and bile salts) and biological (gastric and pancreatic enzymes) gastrointestinal conditions. Some of the antioxidants in the kenaf seed extract were not relatively stable in the intestinal phase of the gastrointestinal tracts. The 2,2-diphenyl-1-picrylhydrazyl (DPPH) radical scavenging capacity and total phenolic content (TPC) assays displayed similar trends as the biostability of phenolic acids, which decreased

during the digestion process. The overall percentage loss of selected phenolic acids was 8.4– 49.4% in the intestinal phase. For the overall *in vitro* digestion system, significant correlations between phenolic acids, total phenolic content (TPC) and antioxidant activity (DPPH) were obtained in all digestion phases with the exception of the gastric phase.

### **Keywords:**

pulsed ultrasound-assisted extraction (PUAE); phenolic acids; kenal; antioxidant activities

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