Fingerprinting fake coffee

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With prices of gourmet coffee approaching sticker-shock levels, scientists in Illinois are reporting development of a method to "fingerprint" coffee to detect when corn has been mixed in to short-change customers. Their study is in the Aug. 8 issue of ACS's *Journal of Agricultural and Food Chemistry*, a bi-weekly journal.

Gulab Jham and colleagues point out that such adulteration of Brazilian coffee is among the most serious problems affecting coffee quality — with cereal grains, coffee twigs, and brown sugar sometimes mixed into the genuine article. Their research focuses on detecting corn, probably the most widely used adulterant.

The study describes development and use on six popular coffee brands of a method for analyzing one form of vitamin E in Brazilian coffee. Because roasted corn samples have high concentrations of vitamin E, it serves as a fingerprint for adulteration with corn.

In laboratory tests they found that one brand of Brazilian coffee contained almost 9 percent corn. Although noting that their results are preliminary, the scientists say their new method appears to be "a significant improvement" over existing tests to detect corn adulteration.

Source: American Chemical Society

https://phys.org/news/2007-09-fingerprinting-fake-coffee.html