

On the Activity of Fungi in Coffee in Relation to Ochratoxin A Production

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SUMMARY

Below are the main points of relative certainty and some related questions.

There are three OTA-producing fungi of significance that occur in association with coffee or coffee production systems: *Aspergillus niger*, *A. carbonarius* and *A. ochraceus* (and other Circumdati species).

Hydrophilic, non-OTA producers and seed homeostasis stabilise the commodity at high moisture content with respect to OTA contamination: does fermentation provide remediation? Is wet cherry safer than half-dry cherry?

Based on occurrence, *A. ochraceus* is the best-adapted coffee OTA-toxigen: is it a true coffee associate?

The most common, *A. niger*, has a low capacity for OTA production: is it an important quality degrader?

A. carbonarius has a narrower range of toxin-producing conditions suggesting that in most of its OTA-producing range it would not compete successfully with hydrophilic coffee associates: is it an occasionally successful opportunist?

The balance of probability is that *A. ochraceus* is the source of OTA problems in coffee.

OTA toxigens are more common later in processing: is this *de novo* infection and if so what is the source and mechanism?

There is nothing so far to link any particular practice to **occurrence** of toxigenic fungi.

There is every reason to believe practice, when toxigenic fungi are present, is responsible for the development of OTA levels that constitute a problem: to what extent does growth and toxin production before harvest take place?