

Survey of Indian Coffee Samples for Ochratoxin-A (OTA) Contamination

T.N. GOPI NANDHAN¹, M. SAJJAN¹, K. VELMOUROUGANE²,
P. PANNEERSELVAM³, Y. RAGHURAMULU¹, R. NAIDU^{1*}

¹Analytical Laboratory, Coffee Board, No.1 Dr. Ambedkar Veedhi, Bangalore-560001, India

²Post Harvest Technology Laboratory, Coffee Regional Sub Station (CRSS),
Chettalli- 571 248, India

³Division of Post Harvest Technology,

*Former Director of Research, Central Coffee Research Institute, Coffee Research Station-
577117, Chikmagalur District, India

SUMMARY

Ochratoxin-A (OT-A) is a naturally occurring mycotoxin produced by moulds belongs to the genera of *Penicillium* and *Aspergillus*. The presence of OT-A contamination in coffee is currently much discussed in the international circle as, it is reported to be nephrotoxic and possibly carcinogenic.

Under FAO/CFC/ICO sponsored multi-country global project on “**Enhancement of Coffee Quality through Prevention of Mould Formation**” an analytical laboratory was established at the Coffee Board of India. A total of 113 green bean samples from commercial trade have been analysed for OT-A content as per the internationally accepted norms. Prior to the establishment of the Analytical laboratory, the Board had a collaborative project with National Institute of Nutrition, Indian Council of Medical Research Institute (ICMR), Hyderabad under which a total of 158 green coffee samples were analysed for OT-A content. Out of the 271 samples analyzed, 257 samples had OT-A levels below 5 parts per billion (ppb) including those samples with below detection limits. Only 14 samples had OT-A levels more than 5 ppb. The highest level of OT-A recorded was 11.7 ppb in a robusta cherry sample. The results of this screening exercise indicated that majority of the green coffee samples analyzed had insignificant level of OT-A contamination. Indian green coffee samples will be able to meet maximum permissible limits prescribed for green coffee by various importing countries and also will be able to meet the proposed norms of the European Union (EU).