

Investigations of On-farm Processing and Drying of Coffee in India to Develop a GAP and GMP Plan for Prevention of Mould Formation

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SUMMARY

Experiments were carried out at CCRI and CRSS, Chettalli on various aspects of processing (Good Agricultural Practices and Good Manufacturing Practices) both in arabica and robusta parchment and cherry. The experiments comprised, layer thickness, stirring frequencies, stage of fruit maturity, pre washing fruits before pulping, fruit injury, pulp contamination, heaping of fruits, re wetting of coffee, different surfaces for drying coffee and use of test weight and moisture meter for measuring bean moisture on incidence of mould. From the trials drying of coffee on bare soil was found to invite higher mould incidence compared to other surfaces. It was also found that drying surfaces had no major influence on the incidence of Ochre moulds in the final product, if the fruits were already infested with Ochre group moulds. Drying of parchment and cherry at 4 cm and 8 cm with minimum 4 rakings per day was found to minimise the ochre mould infection. Mixing of tree dried and gleaning during processing of coffee was found to increase the risk of toxigenic mould in the final product. Pre washing and removal of floats before processing was found to bring down the mould contamination considerably. Injury to fruits and pulp/skin contamination in cherry and parchment coffee respectively increased the risk of ochre incidence. Heaping of fruits before pulping even for one day was found to invite fungal contamination. Rewetting of cherry during drying (especially towards the end of drying) was found to significantly increase the risk of OTA producing moulds. Parchment coffee was found over dried and cherry to under dried by test weight method.