

Evaluation of the Hygienic Quality of Green and Roasted Coffee Beans and Ground Roasted Coffee from Different Brazilian States

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SUMMARY

This study aimed to evaluate the hygienic level of commercial coffee brands from various Brazilian states. Raw materials were evaluated for external and internal insect infestation and roasted samples (espresso and ground coffee) for heavy (sand, soil, metallic particles etc.) and light (larvae, insects, mites, insect fragments, rodent hairs etc.) filth. Raw samples showed infestation by crop related insects (*Hypothenemus hampei*) and storage insects (mite, psocoptera, lepidoptera and other coleoptera), indicating raw material external filth control as one critical point and damaged beans (borer exit/entry holes; bean tunnelling) as another, since the latter can house whole insects, fragments and cast-off skins, leading to contaminated final products. 92.2% of the roasted bean samples (205 espresso and 375 roast, ground) showed from 1 to > 300 insect fragments and only 7.8% conformed to current Brazilian legislation (absence of filth, parasites and larvae). It is impossible to grow, harvest and process raw products free of naturally occurring defects, as required by the current legal limit, but the implementation of good manufacturing and storage practices throughout the coffee production chain could reduce the levels. A survey of hygiene levels is useful in quality control to identify critical points. The recognition and significance of this insect material could lead to a review of current legislation, establishing reasonable limits for natural defects presenting no health hazards, in foods for human use.