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Development of an Effective Quality Management Practice for Cocoa Beans before Export to the European Union for Processing: A Study on Ghana’s Cocoa Industry

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Abstract

Cocoa beans from Ghana are valued by most chocolate manufacturing industries around the world and have been the mainstay in Ghana’s economy for many years. Ghana processes some of its beans for the local market and exports the rest especially to the European Union countries. Still, production levels and quality of the beans are not up to the expectation of stakeholders. The study used face-to-face interviews with semi-structured questionnaires combined with visual observation to collect relevant data from 98 cocoa farmers from four districts within the cocoa growing regions in Ghana. The study gave a description of the cocoa beans production processes in Ghana before export and indicated the quality criteria for cocoa beans and factors which influence the quality criteria. The study revealed that about 71 % of the cocoa farmers used cutlasses/machetes for cocoa pod harvesting while about 5 % used the cocoa sickle which is the appropriate tool for cocoa pod harvesting. Breaking up of cocoa pods should normally be done with a recommended tool such as the wooden mallet but about 65 % of the farmers were still using cutlasses and machetes for such activity. Also, fermentation of cocoa beans in banana/plantain leaves was found to be common representing about 85 % of the methods used for fermentation. During fermentation, cocoa beans should be turned twice every 48 hours and about 13 % of the farmers applied this. The results further indicated that about 20 % of the farmers had appropriate facility for dried cocoa beans storage while about 57 % stored their dried cocoa beans in their kitchens and about 19 % stored their dried cocoa beans in their corridors. Therefore, appropriate quality management practices were developed for the industry to ensure continual improvement to reduce the dwindling decline in the quality. Damage by pest, lack of credit facility, high cost of spraying, weed control problems, inadequate extension services and lack of storage facilities were seen as major constraints in cocoa production. Routine training programmes on quality management of cocoa beans were recommended for the farmers and all the stakeholders in the cocoa beans supply chain process.

Keywords: Cocoa, fermentation, harvesting, quality management, storage, supply chain