Abstract No: BP-12

Impact of threshing, blanching, and drying on piperine content in "black pepper" (*Piper nigrum* L.)

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All spices exported from Sri Lanka are tropical aromatics used in human foods for flavoring. Among them, black pepper is valued for its distinct biting quality attributed to the alkaloid, piperine. The amount of piperine content can be influenced by alterations in conditions of the black pepper processing chain. Therefore, the study aimed to find the variation in piperine content in black pepper via the facilitation of different threshing methods and processing procedures in the black pepper processing chain. Three types of threshing methods (Hand threshing, foot threshing and machine threshing), two types of blanching (Blanching and without blanching) and two types of drying methods (Sun drying and mechanical drying) were used as treatments and the piperine content in black pepper was determined by spectrophotometrically. Piperine content was measured in triplicate samples after solar drying and mechanical drying. According to the results, there was no significant difference (p>0.5) in the threshing method for piperine content. However, the majority of the black pepper samples showed that there was a significant difference in piperine content in blanched samples than the un-blanched samples implying that the piperine percentage increases with the increase in blanching. Further, piperine content was significantly lower (p<0.5), in machine-dried samples compared to the sun-dried samples, due to the higher vaporization of piperine caused by higher temperature. Therefore, sun drying and blanching can be considered as the best practices in the processing chain of the higher piperine content for black pepper.

Keywords: Black pepper, Piperine content, Sun drying and blanching