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Use of a Fungal Lipase for Enhancement of Aroma in Black Tea
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Lipases produced extracellularly by bacteria and fungi are being widely used in the food industry for flavour development. During tea processing, the possibility of enhancing the flavour of tea by the exogenous addition of lipase has not been reported. It was therefore considered worthwhile to amend tea leaves with microbial lipases and observe the changes in the flavour profile of the finished product. Among a few fungal lipases screened, the enzyme secreted by *Rhizomucor miehei* increased the formation of desired flavour compounds. Hence, studies were initiated to achieve enhanced production of this industrially useful enzyme. Under solid-state fermentation *R.M. miehei* produces an extracellular lipase in copious amounts on a simple solid substrate within 96 h, which is active at lower temperatures and at near-neutral pH. These attributes make this enzyme suitable for use during the manufacturing of tea, where reactions are carried out at temperatures of 15 to 20°C and pH range of 5 to 7. In the present study, exogenous addition of lipase resulted in an increase in flavour volatiles, which contribute to the aroma of tea.

Keywords: [lipase for tea processing](#), [lipase for aroma enhancement](#), [Rhizomucor miehei](#), [extracellular lipase](#), [solid-state fermentation](#)


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