

Title Improved Methods for Curing Vanilla Beans
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Abstract

Vanilla (*Vanilla planifolia* Andrews) is a climbing orchid indigenous to Mexico. Vanilla is a universal flavouring compound and the characteristic flavour is generated following hydrolysis of glucovanillin to free vanillin during curing. The aim of this research was to develop a rapid curing method. Mature green beans were obtained from a commercial grower, Cairns, Queensland. Different combinations of curing times, temperatures and drying methods were compared. One batch of beans was continuously cured at 35°C for 12 days. Two further batches were blanched in water at 67°C for 3 minutes and then sweated at 45°C for 4 day or at 35°C for 5 days. The beans were sweated until they turned brown. Three methods of drying were evaluated; a heat pump dryer at 40°C and 15% RH, tunnel dryer at 60°C and 20% RH and tunnel dryer at 60°C and 10% RH. Vanillin was assayed by HPLC and the quality of cured beans was assessed by untrained panellists. The concentrations of vanillin were low in green beans. About 90% of the glucovanillin was hydrolysed in non-blanched beans cured continuously at 35°C but there was only 70% conversion in beans blanched at 67°C for 3 minutes and sweated at 45°C for 4 days or 35 °C for 5 days. Aroma profiling showed that the beans cured continuously at 35°C had superior aroma to beans blanched in hot water and sweated at 45 and 35°C. The project funded by Australian Vanilla Plantations Ltd and the UWS Hawkesbury Foundation.