**Title** VAPORMATE<sup>®</sup> fumigation of export tropical fresh produce - An update

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## Abstract

Following successful quarantine treatment of export bananas sent from the Philippines to New Zealand in individual boxes using VAPORMATE<sup>®</sup> [a BOC non-flammable product containing ethyl formate (EtF)], focus was directed to treating export pineapples. The pineapple fruit surface provides hiding places for quarantine pests and interception of actionable surface pests are frequent. VAPORMATE<sup>®</sup> was applied to the products pre-shipment. On arrival in NZ, the treated pallets were inspected and the target pests were recovered and closely examined. No live quarantine pests were found in the experimental pallets including the target pests—scale, mites and mealy bugs. The pineapple's shell remained unaffected by the pre-shipment treatment. No ethyl formate residues were detected in the VAPORMATE<sup>®</sup> treated pineapples. Based on the outcomes of our research, VAPORMATE<sup>®</sup>, a rapid acting, low toxic and low residue fumigant, is an effective treatment for the elimination of target pests. VAPORMATE<sup>®</sup> is likely to play an important part in the quality assurance of the fresh pineapple exports. Safer fumigants such as VAPORMATE<sup>®</sup> represent one of the most exciting new products in methyl bromide replacement. VAPORMATE<sup>®</sup> may also be used in the fresh produce and flower industries in any country (subject to regulatory approval) looking to protect its borders from foreign pests.