

Residual ethylene dibromide and inorganic bromide levels in some fruit and vegetables after fumigation with ethylene dibromide or methyl bromide

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Abstract

Residues of ethylene dibromide (EDB) were determined at periods up to seven days after fumigation of capsicum, mango, papaw, passionfruit, pumpkin and zucchini. Residues of inorganic bromide were also determined at periods up to seven days after EDB fumigation for capsicum, cucumber, mango, papaw and passionfruit. All commercially recommended EDB treatments, with the exception of that for zucchini, resulted in EDB residues at three days from 6 to 16 times the recommended maximum residue limit (MRL) of 0.1 mg kg⁻¹, specified for a with-holding period of two days. All the inorganic bromide residues determined up to seven days after EDB fumigation were below the current recommended MRL values. Inorganic bromide residues were also determined for avocados fumigated with methyl bromide. After seven days the residues for full ripe fruit slightly exceeded the recommended MRL of 75 mg kg⁻¹, while those for mature green and for mixed green and ripe fruit were slightly less than the recommended MRL.

1978. Australian Journal of Experimental Agriculture and Animal Husbandry 18(93) 586 - 590