

EFFECTS OF IRRIGATION RATES ON MELOIDOGYNE SPP. LARVAE
POPULATION AND TOMATO YIELDS

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Rainshelter-protected tomatoes were produced in soil beds with and without methyl bromide fumigation prior to transplanting. Yields increased with increasing total water application rates from 53 to 267 liters water/m of row in the methyl bromide fumigated trial. In a trial where the soil was not fumigated, root-knot nematode (Meloidogyne spp.) larvae increased 51-fold in the soil and salable yield was reduced to half when the total water application rate was increased from 49 to 487 liters water/m of row; severe injury occurred to plant roots in the highest irrigation treatments.

In the optimum irrigation treatment of the methyl bromide fumigated trial, 21 liters of water were applied to produce a kg of tomato fruit; however, 180 liters of water were applied to produce a kg of tomato fruit at the highest irrigation rate in the non-fumigated trial. Irrigating daily was superior to irrigating at weekly intervals.