Irrigation frequency and amount affect yield and quality of field-grown melon (Cucumis melo L.)

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ABSTRACT

This study was conducted to determine the most suitable irrigation frequency and quantity for fieldgrown melon. Irrigation quantities were determined based on pan evaporation (Epan) from a screened Class-A pan. Four different irrigation treatments employing two different irrigation intervals (I1: 6 days; I2: 12 days) and two different plant-pan coefficients (Kcp1: 0.60; Kcp2: 0.90) were tested. Total irrigation quantities (Ir), plant water consumption (Et), and melon yields varied from 405 to 549 mm, 481–637 mm and 18.0–32.4 Mg ha_1, respectively. The highest yield was obtained from the treatment employing the greatest frequency and quantity of irrigation (I1Kcp2). Most fruit traits were significantly affected by differences in irrigation treatment.

Keywords: Irrigation Irrigation scheduling Melon (Cucumis melo L.) Pan evaporation