

**EFFECTS OF ROOT ZONE TEMPERATURE ON BLOSSOM-END
ROT OF SWEET PEPPER
(*CAPSICUM ANNUUM* L.) FRUITS**

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**ABSTRACT – Effects of root zone temperature on blossom-end rot of
sweet pepper (*Capsicum annuum* L.) fruits**

Blossom-end rot (BER) may reduce significantly sweet pepper production undergreenhouse in Temperate region during summer season. Temperature might play a key role to generate BER fruits. The objective of the present study was to examine the effects of root zone temperature on the incidence of BER in sweet pepper fruits grown in soil and soilless culture. Initially low incidence of BER fruits increased abruptly to the highest incidence (12.5%) of BER fruits in soil at the end of May.

Sweet pepper plants grown in rockwool slabs reached the maximum incidence of BER fruits at the beginning of June, with 36.3% of marketable yield. Compared soil with soilless culture, relationships between temperature of root zone media and the incidence of BER fruits, there were significant differences ($r^2=0.88, 0.57$ respectively). It can be concluded from the coefficient of linear regression function, that increasing temperature (range between 16-28 °C) of root zone media with 1°C, increased the incidence of BER fruits with 4% and 1.5% in soilless and soil grown sweet pepper respectively.

Keywords: blossom-end rot, *Capsicum annuum*, root zone temperature