

Growth, development and yield of pawpaw (*Carica papaya* L.) 'Homestead selection' in response to soil moisture stress

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Abstract

The effects of four soil water potential regimes under greenhouse conditions on growth, development, and yield of 'Homestead selection' pawpaw were investigated. The objectives were to determine the critical soil water potential regime and the moisture sensitive stages of growth of pawpaw. Repeated cycles of stress to -6.0 bar soil water potential imposed as from vegetative phase prevented fruit formation by constantly causing flower abscission. The stressed plants were stunted in size. The -2.0 bar soil water potential value was considered the critical level for normal growth and reproductive development of pawpaw. The mid-vegetative, flowering and fruit enlargement phases were moisture sensitive.

Key words Critical soil water potential - Moisture sensitive stages - Pawpaw - Soil moisture stress