Effect of pre-harvest fruit covers and calcium fertilization on pineapple thermotolerance and flesh translucency

Publons ID	52984431
Wos ID	WOS:000756684300004
Doi	10.9755/ejfa.2021.v33.i10.2766
Title	Effect of pre-harvest fruit covers and calcium fertilization on pineapple thermotolerance and flesh translucency
First Author	
Last Author	
Authors	Cano-Reinoso, DM; Soesanto, L; Kharisun; Wibowo, C;
Publish Date	OCT 2021
Journal Name	EMIRATES JOURNAL OF FOOD AND AGRICULTURE
Citation	3
Abstract	This study evaluated the effect of pre-harvest fruit covers and calcium fertilization on pineapple thermotolerance and flesh translucency. The treatments were, A (Control: yellow cover), B (white cover + change to yellow in four weeks before harvest), C (black cover + change to yellow in four weeks before harvest), D (Raynox until harvest), E (white cover + change to yellow in four weeks before harvest + Ca from ten weeks until harvest), F (black cover + change to yellow in four weeks before harvest + Ca from ten weeks until harvest), F (black cover + change to yellow in four weeks before harvest + Ca from ten weeks until harvest), and G (Raynox until harvest + Ca from ten weeks until harvest). MD2 pineapple was employed in this experiment. Translucency incidence, severity and flesh lightness were determined, while calcium content, electrolyte leakage, and fruit temperature were examined to characterized pineapple thermotolerance. The translucency and thermotolerance were positively affected by the flesh temperature (average of 38 degrees C at 12:00 PM), whereas the thermotolerance was also influenced by the calcium (Ca2+) assimilation in the cell wall. Treatments C and D reduced the thermotolerance (55-65 weight % of Ca2+ assimilated), and obtained a higher translucency incidence (> 10 %), while treatment E provided the best performance because decreased the translucency incidence (< 5 %), and increased the translucency. Further studies should be performed on thermotolerance effects on translucency and the relation to magnesium status.
Publish Type	Journal
Publish Year	2021
Page Begin	834
Page End	845
lssn	2079-052X
Eissn	2079-0538
Url	https://www.webofscience.com/wos/woscc/full-record/WOS:000756684300004
Author	CONDRO WIBOWO, S.TP, M.Sc., Ph.D