

Title Hydroxyproline-rich glycoproteins expressed during stress responses in cassava

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Abstract

The storage roots of cassava (*Manihot esculenta* Crantz) suffer from a rapid post-harvest deterioration that is a major constraint to their increased exploitation. In many ways this deterioration resembles wound responses in other better studied plant systems, though it appears to lack an adequate wound repair response. A cDNA clone (cMeHRGP1) for a hydroxyproline-rich glycoprotein expressed during the deterioration response was isolated and characterised. This clone proved to be an antisense pairing, coding for part of phosphoserine aminotransferase on its complementary strand. Messenger RNA corresponding to cMeHRGP1 accumulated in deteriorating cassava roots from day three after harvest, by which time the deterioration response was well advanced. There by confirming that aspects of the wound repair response were inadequate in harvested cassava roots.