

Title (en)

STRESS TOLERANCE IN PLANTS THROUGH SELECTIVE INHIBITION OF TREHALOSE-6-PHOSPHATE PHOSPHATASE

Title (de)

STRESSTOLERANZ BEI PFLANZEN DURCH SELEKTIVE HEMMUNG DER TREHALOSE-6-PHOSPHAT-PHOSPHATASE

Title (fr)

TOLERANCE AU STRESS CHEZ LES PLANTES VIA L'INHIBITION SELECTIVE DE LA TREHALOSE-6-PHOSPHATE PHOSPHATASE

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Application

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Abstract (en)

[origin: WO2006060376A2] The present invention relates to transgenic plants comprising an isolated DNA molecule comprising a polynucleotide that encodes a nucleic acid that down-regulates an endogenous T6PP gene, wherein the polynucleotide is under the control of a promoter that is stress-inducible and is expressed predominantly in vegetative tissue. The promoter may also be developmentally expressed in maturing kernels. Expression of the polynucleotide results in the increased availability of carbon to developing florets/kernels when plants are subject to environmental stress, such as a water deficit. The DNA molecule of the invention thereby permits more photosynthate to be directed to the developing ovules/embryos resulting in stabilized yield in growing environments that are subject to periodic stress.

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