Overexpression of *SoSUT1* Gene on Transgenic Sugarcane (*Saccharum* spp. hybrids)

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ABSTRACT

In most plants, sucrose is the major export organic form of photoassimilate from the photosynthetic tissue to sink tissue, where it is stored or metabolized. The translocation of sucrose is facilitated by sucrose transporter protein (SUT). To study the role of sucrose transporter in sugarcane, overexpression of *SoSUT1* gene on transgenic sugarcane was evaluated. Based on the cDNA bands intensity, it can be illustrated that the expression of *SoSUT1* gene on transgenic leaves is higher than non transgenic. The increasing of *SoSUT1* gene expression is followed by SUT1 content improvement detected by Western blot method using specific SUT1 polyclonal antibody. The increased *SoSUT1* gene expression improved sucrose translocation from transgenic sugarcane leaves to its stems.
Keywords: overexpression, *SoSUT1*, sugarcane.

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