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Methodology

Simple and efficient method for isolating cDNA fragments of *lea3* genes with potential for wide application in the grasses (Poaceae)

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ABSTRACT. cDNA fragments of *lea3* genes with a high GC content (from 68 to 77%) were found in several Poaceae, including *Sorghum vulgare*, *Saccharum officinarum*, *Oryza officinalis*, *Oryza meyeriana*, *Ampelocalamus calcareus*, *Cynodon dactylon*, and *Zizania latifoli*. They were successfully isolated by means of optimal experimental parameters, which included dimethyl sulfoxide as additive and degenerate primers "AGETKAS" and "AGKDKTG", and their sequences were analyzed. Compared to the method of isolating genes by screening of a cDNA library using abscisic acid- and other stress-responsive cDNA clones, which is time-consuming and costly, this method is relatively easy and inexpensive. Using this new method, many new homologue *lea3* genes were rapidly determined.

Key words: Gramineae plants; *lea3* gene; High GC content sequence; Degenerate primers

