Effect of Dominant Semi-Dwarf Gene on Plant Height and Its Related Traits and Sensitivity to Gibberellic Acid in Rice [PDF]

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摘 要： Six pairs of tall and dwarf near-isogenic lines derived from a dominant semi-dwarf mutant (Y98149) were selected to study height expression and sensitivity to gibberellic acid (GA3). The lengths of the 4-5th internode, the 3rd, 2nd, 1st internodes from the top and the panicle length in the six dwarf near isogenic lines were 97.2%, 53.3%, 65.1%, 61.9% and 94.7% of those in the six tall ones, respectively, indicating that the dominant semi-dwarfing gene significantly inhibited the internode elongation. Moreover, Y98149 (mutant type) was more sensitive to GA3 than Y98148 (wild type), and had a lower GA3 concentration in plant, about 78% of Y98148.

关键词：semi-dwarf gene; near isogenic lines; plant height; internode length; sensitivity; gibberellic acid;

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