

Changes in gibberellic acid (GA3) content in *Oryza sativa* due to paclobutrazol treatment

ABSTRACT

The objective of this study was to determine the level of plant hormone gibberellic acid (GA3) in paddy due to the treatment of Paclobutrazol (PBZ) treatment using high performance liquid chromatography (HPLC) with UV-vis detection at 208 nm. The separation was achieved using reversed column Crestpak C18 (150 mm x 4.6 mm i.d; 5 μ m) at $30 \pm 1^\circ$ C using mobile phase of acetonitrile-water (30:70%; v/v), pH 6.80. The treatment of PBZ with different concentration of 100, 200, 400, and 600 mg/L reduced the concentration of GA3 in paddy. The level of GA3 in paddy treated with 100 mg/L of PBZ did not show significant difference from untreated one. However, the level of GA3 in paddy treated with other concentrations (200, 400, and 600 mg/L) of PBZ was significantly different ($P < 0.05$) from untreated paddy.

Keyword: Analysis; Gibberellic acid; Paclobutrazol; HPLC