



RESEARCH PAPER

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Phytochemical study and in vitro propagation of Patakpura, a native Musa variety of Odisha

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ABSTRACT : The presented experiments were carried out to evaluate the phytochemicals present in a Musa variety Patakpura, which is native to the coastal areas of Odisha state. Experiments were also conducted to study the effects of phytohormones such as cytokinin (BAP) and auxins (IAA) during its *in vitro* micropropagation. It was marked that the fruit peel, sap and stem extracts contains high phenolic and flavonoid compounds. The presence of phenolic content in high quantity caused lethal browning of explants during propagation of Patakpura. During *in vitro* culture it was observed that media containing high concentration of BAP (6 mg/L) had better respond in initial culture while low concentration of BAP (3 mg/L) had high bud formation in multiplication stage. Patakpura explants grown on multiplication medium supplied with 3 mg/l BAP + 0.5 mg/L IAA had highest numbers of shoot buds. In rooting culture the media containing 1.5 mg/L IAA found to be more effective in root induction.

KEY WORDS: Musa, In vitro, Phytochemical, Phytohormones, Micropropagation, Patakpura

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