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Abstract

The gibberellins are one of the major groups of growth promoting hormones and are secondary metabolites of the fungus *Fusarium moniliforme* (Perfect stage: *Gibberella fujikuroi*). Sixteen strains of *Fusarium* from different geographical regions and different hosts were analysed for their ability to produce gibberellins (GA) and for genetic relatedness by random amplified polymorphic DNA (RAPD). Range of gibberellin production varied between 28.9 to 600.0 mg g⁻¹ dry weight of mycelium in different strains of *Fusarium*. RAPD analysis showed completely different pattern between high, moderate and low producing strains. High producers formed nearly identical RAPD patterns, whereas the low and moderate producers gave heterologous amplification patterns. Since *Fusarium pallidoroseum* was in another group, it was possible to distinguish between different species of the genus *Fusarium* by RAPD. These investigations may find an application in the diagnosis of unknown *Fusarium* species and in distinguishing isolates of *Gibberella fujikuroi* within the section of *Liseola*.