
Use of Allelopathy as Natural Growth Stimulant

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Abstract

Allelopathic crop extracts has the ability to enhance the productivity of various crops when used at low concentration. In a series of studies, we evaluated the potential role of sorghum, maize, rice, moringa and brassica extracts in improving the productivity of wheat, rice and maize under different levels of fertilizer inputs in Punjab, Pakistan. We recorded 15-35% increase in yield of wheat, rice and maize across growing seasons and locations. However, combined application of more than one extract was often more effective. The improvement in productivity of field crops was comparable to commercial growth regulators with very low cost involved. The growth promotion and yield enhancement from the application of allelopathic crop extracts was attributed to the presence of certain allelochemicals and growth promoting substances. In conclusion, application of Allelopathic crop extracts at low concentration extract may be opted to enhance the productivity and profitability of wheat, rice and maize.

Keywords: Growth promotion, Yield increase, Natural stimulant

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