

Title Effect of foliar application of plant growth regulators on growth, yield and post harvest losses of potato (*Solanum tubersum*)

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Abstract

A field experiment was conducted during the winter (rabi) season of 2002-2003 to find out the suitable plant growth regulators for foliar spray to maximize seed potato yield. A total of 7 treatments including control were tested in randomized block design with 3 replication on Kufri Ashoka potato (*Solanum tubersum* L.). The results indicated that plant growth regulators like GA₃, NAA, TIBA and ethrel significantly increased seed size (25-75 g) tubers yield as well as total tuber yield. Significantly maximum total tuber yield (37.0 tonnes/ha) was achieved with GA₃ @ 200 ppm treatment, followed by ethrel (35.0 tonnes/ha) in comparison to control (30.4 tonnes/ha). The multiplication rate also varied from 12.8 to 14.6 with different plant growth regulators. The minimum rotting losses were observed with NAA treatment when tubers were kept for short term storage after harvest at ambient conditions. At the end of the storage, significantly dry matter increased was also observed with treatment ethrel, TIBA and NAA.