

## Effect of Thiourea on dormancy breaking and performance of *Agria* minitubers in green house and laboratory

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### Abstract

This experiment was conducted for studying application effect of Thiourea on potato minitubers dormancy breaking in *Agria* cultivar in laboratory and glasshouse in 2005 and 2006. Thiourea in three levels as 0, 0.5, and 1% arranged in a Completely Randomized Design in three replicates. Control minitubers washed by tap water and then floated in distilled water. Treated minitubers floated in thiourea concentrations for 1 hour in 18°C. After drying, the minitubers stored at standard condition. In laboratory, attributes like as days to sprouting, length of the longest sprout, and sprout number measured. Then minitubers planted in pots at glasshouse and days to emergence, main stem numbers, and plant height measured. Tuber number per plant, yield and mean tuber weight was calculated after 4 months. Results showed that thiourea affected all attributes significantly and broke tuber dormancy and increased tuber yield. Sprout number and length, stem number, plant height, tuber number per plant, and tuber weight increased but decreased days to sprouting, days to emergence, and mean tuber weight per plant. Therefore, applying 0.5% thiourea is recommendable for minitubers dormancy breaking because of its effect on rapid dormancy breaking, rapid emergence, increasing minituber number per plant and increasing tuber yield in *Agria* minituber production..

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