

Evaluation of physiological and biochemical changes in garlic (*Allium sativum* L.) bulbs stored under different temperature conditions

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Abstract

Garlic (*Allium sativum* L.) has been widely recognized as an economically valuable crop and a commonly used cooking ingredient. The present investigation was carried out to assess the most popular genotypes (PG-17, PG-18, PG-29, PG-46 and PG-48) for minimum deterioration in physiological and biochemical parameters during storage at 15 °C and room temperature. Room temperature storage was found to be the optimum storage condition for garlic bulbs, showing good germination and growth. PG-18 recorded highest germination percentage (66.93%), survival percentage (66.45%) and took minimum days to germinate along with higher values w.r.t. biochemical composition viz., total phenols (13.87.46 mg/g DW), total flavonoids (0.50 mg/g DW), ascorbic acid (5.99 mg/g DW) and its quality performance was imperative for production of garlic on large scale.