

# Standardizing the Duration of Seed Priming with GA<sub>3</sub> for Invigoration of Artificially Aged Seed of Sorghum

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## ABSTRACT

Initially seed of sorghum variety, NTJ-5, was subjected to accelerated aging by exposing them to 45°C and 95% relative humidity for 24, 48, 72 and 96 h. Seed aging resulted in reduction in germination, seedling length and seedling vigour index. Accelerated aged seed along with unaged seed was treated with GA<sub>3</sub> 50 ppm for different durations (0, 3, 6, 9 and 12 h) to identify the best duration of priming for seed invigoration in sorghum. Results disclosed that hormonal priming had the capacity to mitigate the deteriorating effect of aging. Hormonal priming of sorghum seed with GA<sub>3</sub> 50 ppm for 9 h caused maximum improvement in germination and seedling growth potential of aged seed with low initial seed quality.

**Keywords:** *Accelerated aging, GA<sub>3</sub> 50 ppm, Germination, Seedling growth, Seed priming and Sorghum.*