

# Herbicide Tolerance in Jute

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**Abstract**—Jute also famous as the ‘Golden Fibre’ is one of the important cash crops of Indian sub-continent. West Bengal is the largest producer of jute in India. The jute crop faces stiff competition from weeds during its early growth. The heavy clay texture of soil (of the research station) coupled with incessant rains leaves little scope for manual weeding soil of CSRSJAF. Complex weed population affecting the crop necessitates use of total killer like glyphosate. Being, a total killer, glyphostae may adversely affect jute crop also. Hence, the present investigation was carried out testing herbicide tolerance jute variety JRO 524 by treating seeds with different concentrations of glyphosate ( $1.0 \text{ mgL}^{-1}$ ,  $2.0 \text{ mgL}^{-1}$  and  $3.0 \text{ mgL}^{-1}$ ) for different duration (30 min., 60 min. and 90 min.) in factorial CRD design. Different parameters like germination percentage, root length, shoot length, speed of germination and vigour index Further, varietal responses were also investigated for herbicide. Further, genotypic differences were noted for herbicide tolerance using three genotypes using above-mentioned traits.

**Keywords:** Jute, Seed, Herbicide, Tolerance, Germination, Vigour.