



RESEARCH PAPER

Study on seed priming methods on growth, seed yield and production economics of desi chickpea

Jamkhogin Lhungdim*, K. Nandini Devi, Yumnam Sanatombi Devi and Y. Bebila Devi

Department of Agronomy, College of Agriculture, Central Agricultural University, Iroisemba, Imphal (Manipur) India

(Email: ginlungdim@rediffmail.com)

Abstract : A field trial to evaluate the effects of priming methods and sowing depth of desi chickpea variety JG-14 was conducted at College of Agriculture, CAU, Imphal (Manipur) during *Rabi* season of 2014-15 and 2015-16 with two factors *viz.*, priming methods (Distilled water, Mannitol, NaCl and KNO₃) and sowing depth (5 cm, 7.5 cm and 10 cm). Hydro-primed seeds of chickpea sown at 10 cm recorded significantly highest growth parameters, yield attributes and seed yield (852.73 kg/ha) while lowest grain yield was recorded in NaCl primed seeds with 5 cm sowing depth. Higher root length and root dry matter were obtained from the plants primed with KNO₃ with sowing depth of 7.5 cm while hydro-primed seeds sown at 5 cm exhibited earliest germination while hydro-primed seeds sown at 10 cm recorded the highest field emergence (75.42%). Highest net return and B:C ratio (1.38) was obtained with hydro-priming and sowing depth of 10 cm which be recommended for desi chickpea in North eastern region.

Key Words : Chickpea, Growth, Seed priming, Sowing depth, Yield

View Point Article : Lhungdim, Jamkhogin, Devi, K. Nandini, Devi, Yumnam Sanatombi and Devi, Y. Bebila (2019). Study on seed priming methods on growth, seed yield and production economics of desi chickpea. *Internat. J. agric. Sci.*, **15** (1) : 37-42, DOI:10.15740/HAS/IJAS/15.1/37-42. Copyright@2019: Hind Agri-Horticultural Society.

Article History : Received : 11.07.2018; Revised : 20.11.2018; Accepted : 26.11.2018