

SEED QUALITY AS INFLUENCED BY DORMANCY BREAKING TREATMENTS IN FOXTAIL MILLET GENOTYPES

ANIL SEBASTIAN¹, VASUDEVAN. S. N.² & SANGEETHA I. MACHA³

¹²Research Scholar, TNAU, Coimbatore, Tamil Nadu, India

²Professor and Head, Department of Seed Science and Technology, University of Agricultural Sciences, Raichur, India

³Assistant Professor, Department of Seed Science and Technology, University of Agricultural Sciences, Raichur, Karnataka, India

ABSTRACT

A lab investigation was carried out with 9 genotypes of foxtail millet to fix the best dormancy breaking treatment based on the seed quality of the treated seeds. Seeds were subjected to various physico chemical treatments viz., control, exposure to sun light for 48 hr, exposure to 45 °C for 24 hr and 48 hr, water soaking for 12 and 24 hr, soaking in KNO₃ at 0.5 and 1 per cent, soaking in HNO₃ at 0.5 and 1 per cent, soaking in ethrel at 25 and 50 ppm, hot water treatment at 50 °C and 60 °C for 1 min and soaking in Thiourea at 0.5 and 1 per cent. Among the treatments, ethrel at 25 ppm followed by pre-heat treatment for 48 hr was most effective in release of dormancy in foxtail millet genotypes. Seeds treated with ethrel at 25 ppm recorded highest seed germination (86.44 %), seedling length (23.35 cm), dry matter (29.41 mg) and lowest electrical conductivity (0.314 dSm⁻¹).

KEYWORDS: Foxtail Millet, Dormancy, Ethrel, Germination

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