

Relationship of Seedling Quality Tests to Field Emergence in Quality Protein and Normal Maize (*Zea Mays* L.) Genotypes

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ABSTRACT

An experiment was undertaken with ten maize inbred lines which include both quality protein maize (QPM) and normal maize lines to identify the best seed quality test to predict field early establishment of maize seed under winter season i.e. below 14°C. Standard germination test, cold test, accelerated aging test and electrical conductivity test of seed leachates were conducted to evaluate the quality of seeds. Seedling parameters like seedling length and dry weight were also measured. The lines like BML 7 and BQPML 5280 had good field emergence even in winter season. All seed quality tests were well correlated with field emergence percentage. However, accelerated aging test predicted field emergence of maize seed better than other tests, suggesting the suitability of the test to evaluate maize seed lots.

Key words : Field emergence, Normal maize, QPM.