

EVALUATION OF MUNGBEAN (*VIGNA RADIATA*, L) MUTANTS  
FOR NATURAL NODULATION AND BIOLOGICAL NITROGEN  
FIXATION USING  $^{15}\text{N}$  ISOTOPE DILUTION TECHNIQUE

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ABSTRACT

*In a pot culture experiment, seven mungbean advanced genotypes/cultivars (NM-20-21, 6601, NHM-36, NHM-37, NHM-45, NHM-51 and NHM-54) were screened for their natural nodulation and nitrogen fixing potential using  $^{15}\text{N}$  isotope dilution technique. The results revealed that number of nodules, nodules dry weight/plant and percent nitrogen in shoot were higher and statistically equal in the mutant lines NM-20-21 and 6601, than the other mutant lines tested. Nitrogen fixation potential as estimated by atom percent  $^{15}\text{N}$  excess also revealed that NM-20-21 was the most efficient line followed by 6601, whereas NHM-54 exhibited the least nitrogen fixing potential.*