



381-5 Screening of Mungbean (*Vigna radiata*) Genotypes for Drought Tolerance in Arid Climate of Saudi Arabia.

Poster Number 411

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Poster Presentation

Mungbean (*Vigna radiata*) is a newly introduced crop in Saudi Arabia. This crop has a potential importance in relation to yield, dietary value, soil enrichment, nitrogen fixation capability etc. Prospectively, it is drought tolerant and a valuable contributor to cropping system. Mungbean is a rich source of protein and vitamins, enhances body immunity and cholesterol mediator as well. To exploit the crop potential, the present study was performed in Agricultural Research Station, College of Food and Agriculture Sciences, King Saud University to evaluate nineteen mungbean genotypes for growth, total dry matter production, seed yield and quality, harvest index (HI) and crop index (CI). Results exposed that although drought stress hampered yield and yield components of mungbean genotypes nonetheless, some genotypes presented remarkable differences than others and recorded seed yield ranged from 2.55 to 3.16 ton/ha. Finally, the results were subjected to classify the nineteen tested genotypes according to their yield production to three categories (high, mid and low yield production genotypes). Genotypic variations for seed quality and crop index were also significant. The inference was established; in order to improve the production potential, selection of genotypes based on growth, yield and yield components traits, is an effective and inevitable tool for sustainable agriculture.

Keywords: Arid climate, Mungbean, Screening, Drought tolerance, Genotypic variation, Seed yield, Crop index

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