

Effects on post harvest treatments on green gram (*Vigna radiata* L.) seeds

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Palatability of green gram depends on the viability of seed. Viability however declines with storage. The new varieties vary in seed size and the extent of seed damage by pests increases proportionately with seed size. Vegetable oil treatment helps to preserve seed qualities. Hence, the effects of local olive oil treatment to sun dried seeds before packing in polypropylene bag were studied by using new bold seeded varieties. The initial quality of seed was determined by the 1000 seed weight (g) and hard seed percentage.

Five hundred grams each of the following varieties MIMB 158, MIMB 159, MIMB 480, MIMB 483, MIMB 502, MIMB 503, MIMB 505, MIMB 509. Ari, MI 5 and Australian introduction were treated with local-olive oil (mee oil) at the rate of 2 mL/kg. Untreated checks were prepared by packing sun dried seeds in polypropylene bags. Three replicates were prepared and arranged as a randomized complete block design. Sub samples of 100 seeds from each bag were observed and subjected to monthly germination tests. The results were analyzed and the seed treatment was found statistically superior to normal storage with out oil treatment.

The varietal variation was highly significant not only in the percentage of damaged seed but also in the seed viability, which decline slightly rapidly under normal storage conditions.

The inference is that within a period of one year, the seed viability declines gradually under ambient conditions. Local olive oil application to seed before storage was superior to storage of untreated green gram seed. The variety Australian introduction was exceptionally good for storage even without oil treatment, when polypropylene bags were used as containers for storage under ambient conditions.