

B-64: Effects of sun drying and mee oil treatment on the quality of green gram (*Vigna radiata*) seed

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Green gram seed is highly palatable and viable soon after harvest. On storage, there is a gradual decrease in viability and palatability as a result of environmental effects on post-harvest maturity. The damage by storage pests enhances deterioration of seed quality. One of the methods used to control storage pests is to sun dry and to apply a little vegetable oil. Prolonged sun drying followed by oil treatment before storing green gram in polythene packs at room temperature had effects which are conducive as well as non-conductive for maintaining seed quality.

The present study was carried out to evaluate the effects of prolonged sun drying of green gram seeds in aluminium containers and application of mee oil (2 ml/kg) on the discolouration of seed coat, 100 seed weight, amount of water imbibed, germination %, pest damage and hard seed % of 8 different green gram genotypes.

The seed coat discolouration varied with the genotype and mee oil was not effective in restoring the original green colour of seed. Although the 100 seed weight of discoloured red seed was slightly lower than that of green seed, the differences were not significant. The total amount of water imbibed was significantly lower for mee oil treatment than for the untreated control (11-28 % variation). The effect of mee oil on inhibition was more prominent on the red seeds than on the green seeds. The hard seed percentage varied with the genotype.

Monthly observations indicated that there was about 4% mean loss of germination for mee oil treatment. Damage by storage pests however was 6% lower.