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Effect moisture stress during pod development on the viability of seeds in *Abelmoschus esculentus* (L) Moench (Okra)

Okra is a popular vegetable crop In Sri Lanka. Moisture stress is a detrimental factor which affects seed viability in this crop. Therefore, this study was conducted to find out the critical period of moisture stress which affects the development of the seeds, at the University farm.

Okra (HRB10) seeds were obtained from well matured pods and were grown in 30pots. The experiment consisted of five treatments, each replicated six times in a Complete Randomized Design. The treatments tested were control (no moisture stress), moisture stress during different stages (first, second, third and fourth weeks) of first pod development> the following day after flowering was considered as the time of pod development. Finally, viability of all seeds was tested.

The highest percentage of germination (91%) was observed in the control. Among the treatments tested, the germination percentage was lowest (30%) in the seeds which underwent moisture stress for a period of one week from the day of first pod development. The seeds which experienced moisture stress during second week, third week and fourth week after first pod development, expressed 55%, 68.9% and 79.3% germination respectively.

Thus, it could be revealed from the results that the moisture stress from the day of first pod development up to about 14 days is critical for seed development in okra and therefore, to obtain seeds with at least 70 % germination, crop should during this period.