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Studies on some selected seed treatments to break the dormancy of *Momordica charantia* (Bitter Gourd)

The bitter ground (Momordica charantia) is commonly cultivated by farmers for various purposes in Eastern Sri Lanka. The fresh seeds are not planted to raise the crop due to their dormancy which normally persists for a period of one and a half to two months. In this study, an attempt was made to break the dormancy by simple (local) treatments.

The experiment consisted four treatments each replicated three times. The seed of control was maintained at room temperature and the second seed lot was packed in an airtight bag containing fresh cow dung and was kept under shade. Third seed lot was buried in soil in a seed bed and covered with polythene. In the fourth treatment, the seeds were soaked for 24 h and were air dried following 24 h.

The seeds in all treatment were treated for one week. The temperature under each treatment was recorded. Thereafter, seeds were allowed to germinate. The number of

days taken for germination was noted, and this time period was considered as the dormancy period.

The seed lot which underwent alternate soaking and drying did not express any significant difference in reducing the dormancy period (34 $\pm$ 0.79 days) The seed lot in soil covered with polythene reduced the dormancy period (11 $\pm$ 1.66 days). The number of days was significantly reduced ($p=0.05$) in the seeds which were treated with cow dung (5 $\pm$ 0.5 days) compared to control (35 $\pm$ 1 days). It also showed the best performance among the treatments.

Storing bitter ground seeds in fresh cow dung under airtight condition for one week is an effective and cheap method of breaking dormancy.