

**Effect of Early Pyrethrum (*Crysanthemum cinerariaefolium*) Seed Harvesting on
Germination in Molo District**

by

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ABSTRACT

Seed is the main source of planting material in pyrethrum; whereby the farmers raise seedlings to establish pyrethrum fields. In the recent past pyrethrum production has been on the decline and currently it's at its lowest ebb and this has affected farmers' income. It is noted that lack of seed as a source of planting material is contributory factor to the decline. The aim of the study is to find out the effect of early seed harvesting on germination, as this may address the problem of seed shortage by reducing the harvesting period. The varieties tasted for germination were P-4, K218 and K235. Whose seed stages taken into account were stage 7, 8 and 9. At stage 7 the seed is considered physiologically mature but with high moisture content, followed by stage 8 and 9. The study was centered on germination and their correlation to moisture content and seed weight. The seed was sown in a nursery using randomized complete block design and data analysis was done using statistical analysis system (SAS) version 8. The least significant difference test was used to separate the means at $\alpha = 0.05$. The site of the experiment was KARI-Molo (National Pyrethrum Research Centre). The study showed that stage 7 of all varieties had the highest moisture content while the seed weight was low. Variety k235 recorded moisture content of 56% while variety K218 and P-4 recorded 57%. The study showed that moisture content did not affect germination. The results of the trials did not affect germination since the correlation coefficient of germination to moisture was negative at $r = -0.52$, $p = 0.05$. In general all the stages can be harvested at the same time. The highest germination percentage was recorded in stage 9 of K218 in all the germination trials, while the lowest germination percentage was recorded in stage 7 of all the varieties (K218, K235 and p-4).