

**EFFECT OF COLCHICINE TREATMENT ON SEED  
SPROUTING AND PHENOTYPE OF SOME COWPEA AND  
*VIGNA VEXILLATA* ACCESSIONS**

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**ABSTRACT**

Fifteen accessions of two species of *Vigna* which comprise ten lines of cultivated cowpea, (*V. unguiculate* (L) Walp) and five lines of its wild relative (*V. vexillata* (L) A. Richard) were subjected to colchicine treatment for polyploidization. The plants were treated with 0.1%, 0.2% and 0.4% colchicine and were monitored for their seed sprouting and phenotropic responses by comparing them with their respective control plants. Putative colchiploids that showed persistent polyploid traits under 0.2% and 0.4% colchicine were obtained in five accessions comprising two accessions of *V. unguiculata* and three accessions of *V. Vexillata*. Quantitative and qualitative differences in the vegetative and reproductive characters were observed between the putative colchiploids and their respective control plants. Colchicine concentrations ranging between 0.2% and 0.4% are suggested to be adequate for induction of polyploidy in *Vigna species*.

**Keywords:** Colchicine, polyploidization, colchiploids, polyploidy.