INVESTIGATIONS INTO SOME GERMINATION CHARACTERISTICS OF TWO COMPOSITE WEEDS

S. Kandasamy and J. Eliezer
(Department of Botany, University of Colombo, Colombo 3)

Tridax procumbens L. and *Vernonia cinerea* (L) are two common, prolifically breeding composite weeds that are economically important. Maximum germination was observed when the seeds were sown on the surface of the soil and occurred 6–7d after sowing in *Tridax* spp and 5–6d after sowing in *Vernonia* spp respectively. The seeds of both species did not loose viability for 9 weeks but over the next three weeks, there was a 25% decline in germination.

Germination of the seeds of both species was very sensitive to light. Negligible germination occurred in the dark. Germination of both species was sensitive to salinity and NaCl concentrations in excess of 2.5% inhibited germination completely.

Germination of the seeds of *Tridax* spp and *Vernonia* spp which were nearly negligible in the dark were improved slightly by treatment with IAA up to a IAA concentration of 5ppm, beyond which level there was inhibition of germination. Germination in the dark was improved considerably by treatment with increasing levels of GA up to 100ppm levels. The effect of increasing concentrations of MCPA on germination showed that beyond 10ppm MCPA levels, the seeds were killed. With increasing age of the seedlings it was found that higher concentrations of MCPA were required to cause mortality.

References:

1. Kulkarni; P. (1978) Indian Journal of Plant Physiology Vol. 21 No. 1, p 66 Mayer, A. M. and Poljakoffn-Mayber. A. (1963) The germination of seeds. Pergamon, Oxford.