

Seed production characteristics of weeds in crop and non-crop situations

Studies were carried out to investigate the seed production and germination of *Eleutheranthera ruderalis* and *Tridax procumbens*, grown with and without a crop

(Brinjals - *Solanum melongenum*, Tomato - *Lycopersicum esculentum*, Sweet and hot peppers - *Capsicum annum*). Mature seeds of the test species were collected and tested by sowing in pots containing sterile loam soil.

On an average, there was a 50 % reduction of the total number of seeds produced in *E. ruderalis* when they were grown with the selected crops other than sweet pepper. In the latter case, seed production of the weeds was similar to that in non-crop situation. In *T. procumbens*, the seed production was 50% lower grown with two peppers and 75% lower with brinjals, but similar seed number were formed when grown without a crop or with tomatoes.

Eleutheranthera ruderalis showed a significantly low germination when grown with tomatoes than with other crops but there was little effect of crop species on the percentage germination of *T. procumbens*. The competition between weed and crop may affect the size of the flower heads and thus, influence the seed production and viability.

However, *T. procumbens* was less efficient in producing seeds compared to *E. ruderalis* but had the higher percentage germination. The persistence and wide occurrence of these weed species may be attributed to its higher seed production or efficient seed germination. Therefore, control measures should be applied before flowering. For further improvements, factors influencing seed germination must be studied.