Abstract

Weeds are among the limiting factors that influence low production of economically important crops including cashew (*Anacardium occidental* L.). Shrub weeds attribute to inter-competition for resources, hinder harvesting and ultimately reduce cashew yields in Tanzania. The current study determined the distribution, characteristics and chemical control option of *Dichapetalum* Engl in Lindi and Mtwara regions, Southeastern Tanzania. The distribution study involved a survey for weed presence along the areas of Lindi and Mtwara regions. The characterization included distilling, and assessing the growth and development properties of shrub weed. Chemical herbicides; glyphosate 480g. ai/l, 2, 4 D - Dichlorirophenoxyacetic 720g. ai/l, triclopyr 160g a.i./l and 1:1 mixture of glyphosate 480g a.i./l plus triclopyr 160g a.i./L at 15, 20 and 25 mls of formulated product/L of water per 4 m^2 were tested on tender, mature and blooming growth stages of *D. Stuhlmannii* and three spraying frequencies. Findings revealed that the *D.stuhlmannii*, is a widely distributed shrub weed in Lindi and Mtwara regions. The weed was characterized with three main growth stages of seedling, mature and blooming with a long tap root and evergreen throughout the wet and dry seasons. The tested herbicides revealed the potential suppression of *D. Stuhlmannii* growth. Glyphosate and a mixture of glyphosate + triclopyr at 15 ml/L outperformed triclopyr and 2, 4 D across all the growth stages. Double spraying of glyphosate and its mixture bettered frequencies of triclopyr and 2, 4 D. The delayed regrowth of suppressed shrub weed took 90–120 days after application of herbicides. The current study recommends for single or double applications of glyphosate herbicides at 15 ml/L or 10,700 ml/ha on tender or mature *D. Stuhlmannii* in cashew farms. Further studies on the economic feasibility and effect on the microbiota of applied fungicides are required.