

**THE IMPACT OF THE GROWTH STAGE OF
GETAKOLA (*Spermacoce hispida*) WEED AND
DIFFERENT HERBICIDE TREATMENTS ON THE
CONTROL OF GETAKOLA**

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ABSTRACT

The weed, *Spermacoce hispida* L. (Family: Rubiaceae), which is locally known as 'Getakola' has, in recent times, become dominant weed in most of the tea plantations. It is poorly controlled or controlled in varying degrees by Glyphosate and other herbicides at different growth stages. Hence, a study was conducted to investigate the impact of growth stage of weed and different Glyphosate based herbicides on the control of Getakola. Getakola weed plants at three different growth phases such as 6-8, 12-14, 18-20 leaf stages were collected from Ury Estate Passara, and raised them on beds with the supply of adequate shade. Four herbicide treatments such as Glyphosate @ 5ml + 2g of Diuron/L, Glyphosate@ 7ml/L, Glyphosate@ 5ml+ 2g of Sulphate of Ammonium (SA)/L, Glyphosate@5ml/L and untreated Control were applied on Getakola plants at two weeks after planting. Visual injury symptoms in the weed were observed and scored in 7, 14 and 21 days after application(DAA) and dead plant percentage and dry weight of viable weeds were measured in 21 DAA. Glyphosate@7ml/L reported the highest plant death percentage and the lowest above ground weed dry weight which were significantly higher than that of other Glyphosate treatments at 6-8 leaf phase. The cocktail mixture of Glyphosate @ 5ml and Diuron @ 2 g/L recorded the lowest dry weight at 12-14 leaf phase. Glyphosate @ 5ml incorporated with SA recorded the lowest dry weight at more mature phase i.e. 18-20 leaf phase. Similar trend to that of above ground parts was seen with root dry weight as well. The weed can properly be controlled by herbicide treatments at more tender phases and incorporation of additives enhances bio-efficacy of Glyphosate at mature phases of growth of Getakola.

Key words: Glyphosate, injury symptoms, problem weeds, *Spermacoce hispida*