DIFFERENT PRE-WEED CONTROL METHODS FOR GOTU KOLA (*Centella asiatica*) CULTIVATION

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ABSTRACT

The plant known as Gotu kola (*Centella asiatica*) has a lengthy history of usage in both Ayurvedic and traditional Chinese medicine. Gotu kola is normally used as food and medicine. It has a higher nutritional value. Weed is a huge problem in Gotu kola cultivation. Weeds compete with Gotu kola space, nutrients, water, etc., Thereby reduce growth and, harvest, increase labor requirements for weeding and require to spend money for controlling the weeds. Weeds grow fast and cover the land before Gotu kola grow and cover the land. If apply the pre-weed controlling method to the land, Gotu kola can be able to grow fast and control the weed growth. So it can solve the above problems in Gotu kola cultivation. The present study found out the best pre-weed control method for Gotu kola cultivation. The study was conducted at Link Natural Product (Pvt.) Ltd. land in Western Province, Gampaha District, Dompe, Sri Lanka. The experiment was laid out in a Randomized Complete Block Design (RCBD) with six treatments and four replications open field conditions.

In the first treatment, there no pre-weed control applied. It was a control treatment and all other treatments are compared with it. The second treatment was solarisation, third one was pre-emergence weedicide application. Lifeline Glufosinate Ammonium was applied to this treatment. In the fourth treatment, paddy husk was led on the plots and burned. In fifth treatment was polythene mulching. Plots were covered with mulching polythene. The sixth treatment was banana stem mulching. In banana stem mulching, chopped banana stem parts were added to the plots and covered as a mulch. Reduction of weed and increase productivity were considered in this experiment. In this experiment, weeding time, weeding cost, weight of weeding, weeding density, and harvest weight were recorded as data.

The results revealed that wedding time was highest in the control treatment than in other treatments. Polythene mulching treatment recorded the lowest time for weeding compared to the other treatment. When considering weeding time, polythene mulching was a successful method. The results revealed that weeding cost was highest in the control treatment than the other treatments. Polythene mulching treatment registered the lowest cost for weeding. The results revealed that the weight of the weed was highest in the control treatment compared to other treatments and the weeding weight was lowest in the polythene mulching treatment. The results revealed that weeding density was highest in control treatment compared to other treatments and weed density was lowest in polythene mulching. The results revealed that harvest weight was highest in the banana stem mulching treatment compared to the other treatments. Polythene mulching produced the lowest harvest compared to the other treatments.

Based on this research, banana stem mulching showed the best results in both weed control and yield. So banana stem mulching method was best pre-weed control method for Gotu kola cultivation.

Key words: Gotu kola, Weeds, Mulching, Pre-weed control

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