Comparison Study on Growth and Yield Parameters among Seedlings and Stem cuttings of *Thai Kangkong (Ipomoea aquatica)*

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Thai Kangkong (Ipomoea aquatica Forssk), is one of the most important leafy vegetables in the Southeast Asia. Lack of sufficient quantities of quality seeds at affordable price is one of the major constraints in *Kangkong* cultivation in Sri Lanka. Even though stem cuttings are used as an alternative planting material, there is no research data available on quality of seedlings and suitable age of stem cuttings. This study was carried out with the aim of comparing yield and growth parameters of seedlings and stem cuttings of different ages and to select the best planting material. Five different ages such as 08, 09, 10, 11 and 12 weeks old cuttings and seedlings were evaluated in a RCBD with four replicates at the research field of HORDI, Gannoruwa (March- July, 2010). As Growth parameters; plant height, length, width and weight of leaves, number of leaves and number of stems, length, width and weight of stems, internodal length, leaf to stem ratio, and as yield parameters; fresh and dry weight per plant and total weight per plot were measured at each harvest in two weeks interval. The data were analyzed statistically with ANOVA using SAS package. Results revealed that the seedlings were best in terms of growth performances such as plant height, length, width and weight of leaves, stem width and leaf: stem ratio compared to stem cuttings only at the initial stage. However, yields of seedlings were not higher than stem cuttings of different ages throughout the experimental period though they had shown quick establishment and good growth performance initially. Among the stem cuttings, 8, 9 and 10 weeks old cuttings showed fluctuation in growth performances while 11 and 12 weeks old cuttings exhibited better growth performances and higher yields in terms of both fresh and dry weight throughout the harvesting period. It is concluded that the 11 and 12 weeks old stem cuttings can be used successfully in the commercial cultivation of *Thai Kangkong.*

Key words: Age of stem cuttings, *Ipomoea aquatica* Forssk, Planting materials, seedlings, *Thai Kangkong*