

Performance and economic returns of cultivating reed plants (*Cyperus corymbosus*) under rainfed conditions in paddy fields of Wet zone for traditional craft weaving industry in Sri Lanka

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Abstract

Traditional craft weaving industry based on rush and reed plants, make use of different types of plant materials. The most commonly used local reed plant is known as Gallehe (*Cyperus corymbosus*) and it is traditionally considered a good quality weaving material. Rush and reed plants (more than 12 species) are raw materials for many traditional and modern finished products of mats, baskets, hats, ropes, wall hangers, sleepers, and also eco friendly wrappings of some commercial products. The demand for rush and reed products is increasing at a rapid rate in the local and export market. Presently the minimum whole sale price for 1 kg of dry reed is Rs. 250. The natural habitats of *C. corymbosus* are in the declining trend. A research was conducted to study the feasibility and economic returns of growing *Cyperus corymbosus* in the agro ecological zone of WL_{2a} under rainfed condition. Experimental design was RCBD with two replicates and trial was established in *Maha* 2016/17 season as two constructed reed beds with plot area of 10 m². The results reveal that time for harvesting of mature reed of *C. corymbosus* was 91 days while flowering initiated at 42 days under the tested rain fed condition. Mean height, tiller number, leaf number and leaf length were 54.4, 3, 2 and 5.7 cm, respectively. The mean fresh weight of 1.875 kg/m² of reed was harvested at least every 90 days under the tested rain fed conditions. Shade drying of reed harvest results in mean dry weight of 0.61 kg/m² with an economical gain of Rs, 152.5 kg/m² as gross return by reed harvest at the rate Rs. 250 per 1 kg of dry reed which is suitable for weaving.

Key words: Environmental conservation, Reed, Rush, Women labour