Comparative study on the growth and yield of Sabah corn cultivars planted on 25% dairy farm effluent compost and 75% Silabukan soil

ABSTRACT

Environmentally friendly soil amendments are becoming increasingly popular currently. This experiment was conducted in the insect-proof rain shelter from 15th August until 1st December 2020. This study compares the growth and yield of five local corn cultivars collected in Sabah; Jagung Kuning Ranau, Jagung Kampung Telupid, Jagung Pulut Telupid, Jagung Manis Telupid, and Jagung Manis Sandakan, planted on the same planting medium consisting of 25% dairy farm effluent (DFE) compost and 75% Silabukan soil. The experiment was laid in a Completely Randomized Design (CRD) with five replications. Corn cultivars had a significant influence ($p<0.05$) on all growth and yield parameters except for flag leaf width and the number of cobs per plant. Jagung Manis Telupid (C4) outperformed other cultivars in plant height (296.5 cm) and the number of leaves per plant (13.75). The highest flag leaf length (67.67 cm) was recorded by Jagung Kampung Telupid (C2). In comparison, Jagung Manis Sandakan (C5) had the highest cob length (16.24 cm), cob diameter (38 mm) and cob weight (106.63 g). Therefore, planting Jagung Manis Telupid (C4) is highly recommended for silage purposes, while Jagung Manis Sandakan (C5) for its cob yields. Further study in the open field is suggested as the growth and yield performance might be different due to other variables.