

**Abstract No: BP-10**

**Effect of banana, orange and pomegranate peels on okra (*Abelmoschus esculentus*) yield**

S. G. A. R. M. Dayarathna and Brintha Karunarathna\*

Department of Crop Science, Faculty of Agriculture, Eastern University, Sri Lanka

\*ilbrintha@yahoo.co.in

Fruit peel waste is one type of agro wastes accumulated in large quantity every day. The discarded fruit peels contain a diverse range of nutrients and antimicrobial compounds, which can be utilized in agriculture. Okra has a high demand in Sri Lanka due to its medicinal and nutritional values, and it grows well in moderate to high temperature. Low yield resulting from poor nutrient status of the soil has been identified as one of the major factors limiting okra production. An experiment was conducted to determine the effect of application of selected fruit peels on okra yield using the variety *Haritha*. Six treatments were laid out in a Completely Randomized Design. Treatments were recommended inorganic fertilizer (T1), half dose of recommended inorganic fertilizer with 1g of banana (T2), pomegranate (T3) and orange (T4) peel powder, 0.5g each of banana and pomegranate peel powders (T5) and 0.5g each of orange and banana peel powders (T6) at both basal and topdressing times. At each picking length, girth and fresh weight of the fruits were measured. The results revealed that there was positive significant differences ( $P < 0.05$ ) on okra fruit length, girth and fresh weight at pickings. Yield (tons/ha) from okra in T6 was three times higher than the yield from okra in T1. The present study concluded that the application of fruit peel powder to the soil, improves the yield of okra in sandy regosol compared to recommended inorganic fertilizer and 0.5g each of orange and banana peel powders with half dose of recommended inorganic fertilizer at both basal and topdressing times gave higher yield among them.

**Keywords:** Banana peel, Okra, Pomegranate peel, Orange peel, Yield