ABSTRACT

Sweet corn (*Zea mays saccharata* Sturt) is a commodity that has high economic value and is one of the potential horticultural crops to be cultivated. Sweet corn is a plant that is popular with the public because it has a sweet taste with a high sugar content and has high nutritional value, especially carbohydrates, vitamins and protein, but low in fat. The high public consumption of sweet corn requires efforts to increaseits production, one of which is defoliation. In additionto defoliating, the use of the right varieties can increase the production of sweet corn. This study aims to determine the effect of defoliation time on the growth and yield of several varieties of sweet corn. This research was conducted in Tambun Tunong Village, Dewantara District, North Aceh Regency from February to June 2022. This study used a 2-factor randomized block design (RBD) with 3 replications. The first factor was defoliation which consisted of 3 levels, namely: D0 (without defoliation), D1 (defoliation at 52 DAP, and D2 (defoliation in 50% of flowering palnts). The second factor was varieties consisting of 4 levels, namely V1 (Sweet boy), V2 (Talenta), V3 (Super sweet), and V4 (Bonanza F1). The variables observed were plant height, number of leaves, stem diameter, flowering age, cob weight with hair, ear weight without hair, cob diameter, and length cob without cobs. The results showed that defoliation treatment had a significant effect on the variables number of leaves aged 8 WAP, cob weight with cob, cob weight without cobs, cob diameter, and cob length without cobs. Variety treatment had a significant effect on plant height at 8 WAP, cob weight with husk, cob weight without cob, cob diameter, and cob length without cob.

Key words: defoliation, sweet corn, varieties.