

## Effects of knife shapes and cutting speeds of a mower on the percentage pulverization of sweet potato vine

### ABSTRACT

The effects of a rotary slasher with two different shapes of knives (L and Y-shaped) at three cutting speeds (1830, 2066 and 2044 rpm) were studied on percentage of pulverization of sweet potato vine passing through the sieve ( $< 28 \text{ mm}^2$ ). The results showed that all the treatments were significant at  $p 0.05$  and  $p 0.01$  significance level. The best result was by Y-shaped knife with highest vine pulverized percentage of 82.76 % and a mower speed of 2440 rpm had the finest vine pulverized percentage of 90.48 %. The best performance for interaction effects between knife shapes and speeds of mower was achieved by the Y-shaped knife and a mower speed of 2440 rpm resulting in an average percentage of 92.62 % of pulverized vine.

**Keyword:** Cutting; Knife shapes; Mower; Pulverization; Slasher; Speed; Sweet potato