

ABSTRACT

EFFICIENCY OF DOSE AND UREA FERTILIZER APPLICATION TIME IN THE INCREASE OF MAIZE (*Zea mays L.*) PIONEER 27

By

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Maize is one of the most important food crop in the world. Maize is often used as an industrial raw material for human food and animal feed manufacture, and ethanol means that demand for maize is increasing. But it has not been supported by the results of corn a less than optimal. One attempt has been made in improving the efficiency of the maize that is dose and time of application of urea fertilizer in its use. The study aims to determine (1) the influence of the optimal dose of urea fertilizer in improving the outcome of hybrid maize varieties Pioneer 27, (2) the influence of the proper application of urea fertilizer in improving the outcome of hybrid maize varieties Pioneer 27, and (3) doses of urea fertilizer efficient depending on the time of application in improving the outcome of hybrid maize varieties Pioneer 27.

Arranged in a factorial design of treatment (4 x 3) in a randomized group design perfect (RKTS) with three replications. The first factor is the dose of urea fertilizer of 100 kg/acre (D1), 200 kg/acre (D2), 300 kg/acre (D3) and 400 kg/acre (D4). The second factor is the time of application of urea fertilizer on maize, which is 2 times the WAP and early flowering 1 (T1), 3 times in 1 WAP 3 WAP, and early flowering (T2), and 4 times in 1 WAP, WAP 2, 3 WAP, and early flowering (T3). Diversity was tested with Bartlett test, the additivity data was tested with Tukey test, data analyzed with anova, and continued with polynomials orthogonal on level signification 5%.

The results showed that (1) urea fertilizer with dose of optimal have been able to increase the dry weight of stover and the yield of hybrid maize varieties Pioneer 27, (2) urea fertilizer application which is in stages did not vary to increase the yield of hybrid varieties of maize crop Pioneer 27, (3) urea fertilizer with a dose of 100 kg / ha which is given by 2 times (on 1 WAP and early flowering) more efficiently to improve the results of hybrid maize varieties Pioneer 27 through the

variable results of maize per acre, the dry weight of stover, and the agronomic efficiency of urea.

Key words : efficiency, maize, urea, time of application