

***Effectiveness of Application Time and Dose of Ammonium Sulphate Fertilizer of
Shoot Growth and Production of Ratoon Rice***

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ABSTRACT

Effort to increase rice production certainly is required the appropriate technology. One of the rice cultivation technology that can be applied is ratoon system. This study was to determine the effect of dose and application time of ammonium sulphate on growth and production of ratoon. The research was conducted in Tegalgede Jember from April to June 2020. The experimental design was arranged in split plot where application time as main plot while dose of ammonium sulphate as sub plot. Application time consisted of three levels namely two days before harvest, during harvest, and two days after harvest. Meanwhile the treatment of ammonium sulphate consisted of 150 kg.ha⁻¹, 200 kg.ha⁻¹, and 250 kg.ha⁻¹. Collecting data was analyzed using ANOVA and than it was tested using DMRT 5%. The result showed that the treatment of application time ammonium sulphate two days before harvest was the best treatment on chlorophyll content (606.6 μmol CO₂/cm²). Meanwhile the dose of ammonium sulphate (250 kg.ha⁻¹) showed the highest average of the number of grain per tassel (95.7 seeds), plant height (61.7 cm) and number of grain per tassel (106.3 seeds). The application of 250 kg.ha⁻¹ ammonium sulphate at two days after harvest showed the highest average on plant height (64.9 cm), while the highest of number of grain per tassel (123.2 seeds) was during harvest.

Keyword: *ratoon rice, ammonium sulphate fertilizer*