

SUMMARY

Inpago Unsoed Protani is a top rice variety that adapts well to marginal environments, including post-harvest land. To increase rice yield, the Salibu cultivation system is being developed as one of the promising methods. The Salibu system promotes the growth of new shoots after post-harvest stump cutting, speeding up the cropping cycle without re-tillage. This research aims to: 1) evaluate the effect of the interaction between NAA concentrations and stump cutting heights on the growth and yield of Inpago Unsoed Protani rice in the Salibu system; 2) determine the optimal NAA concentration and stump cutting height to maximize growth and yield in this system.

The research was conducted experimentally using a two-factor factorial Completely Randomized Design (CRD). The first factor was NAA concentrations, which included 0, 50, 100, and 150 ppm. The second factor was stump cutting heights, consisting of 0.5, 1, 2, and 4 cm from the ground surface. Each treatment combination was replicated nine times, resulting in 144 experimental units. The independent variables tested were NAA concentrations and stump cutting heights. The dependent variables observed were the growth and yield of rice. The growth parameters included the plant survival percentation, number of shoots and shoot height (7 and 14 days after cutting), heading age, harvesting age, plant height, and number of tillers, while the yield parameters included the number of productive tillers, number of panicles, number of grains per panicle, and total grain weight. The growth parameters, specifically heading age and harvesting age, were analyzed using univariate analysis. Meanwhile, other growth parameters and yield parameters were analyzed using Analysis of Variance (ANOVA) at 5% and 1% significance levels. Significant results were further examined using Duncan's Multiple Range Test (DMRT) at a 5% significance level.

The research results showed that the interaction between NAA concentration and stump cutting height had no significant effect on the growth and yield of Salibu rice of the Inpago Unsoed Protani variety. Both NAA concentration and stump cutting height independently affected plant growth and yield under the Salibu cultivation system. The 0 ppm NAA concentration (no NAA application) was identified as the best treatment, while 2 cm and 4 cm were identified as the better stump cutting heights.

Keywords: Cutting height, Inpago Unsoed Protani, NAA, Salibu system, Yield