

SUMMARY

Boris Kaido. 115040209111001. *Pyraclostrobin* Role in Improving Efficiency Nitrogen Fertilizer and Effect on Quality and Yield of Corn Seed (*Zea mays* L.). Under the guidance of Prof. Dr. Ir. Kuswanto, MS and Karuniawan Puji Wicaksono, SP., MP., Ph.D.

Corn is the major commodity crops in Indonesia in terms of aspects of business and the use of the results, as the raw material of food and feed (Sarasutha, 2002). In Indonesia, Corn used for important food source after rice. Besides the food, corn is also widely used as animal feed. Corn needs in Indonesia is quite high, more than 10 million tons per year dry shelled.

The study was conducted to examine the role of pyraclostrobin against corn crop in the efficiency of nitrogen fertilizer and examines the role of pyraclostrobin to increased amylose content of corn grain. The hypothesis of this study is the provision of pyraclostrobin can enhance the growth, yield and amylose content of corn grain. The study was conducted between July and October 2012 in the Garden Experiments UB Faculty of Agriculture, Rural Jatikerto, Kromengan district, Malang regency. Materials research is Earth 3 varieties of corn seeds, polybags size of 3.5 kg, water, inorganic fertilizers such as urea, and pyraclostrobin. The design used is nested design, which consists of two factors: the application of pyraclostrobin (P) and the dose of nitrogen (N). P0: Without application of pyraclostrobin, P1: Applications of pyraclostrobin 400 ml ha⁻¹, N0: no fertilizer, N1: N dose of 2 g plant⁻¹, N2: N dose of 4 g plant⁻¹, N3: N dose of 6 g plant⁻¹, N4: N dose of 8 g plant⁻¹. There are 10 treatment and repeated 3 times Observations were made after the application of pyraclostrobin every 1 week and 2 weeks of observation of chlorophyll. Data were analyzed with analysis of a variety of test F level 5% was followed comparison test between treatments. Significantly different treatment will be tested further with the least significant difference test (LSD) at the 5% level. Treatment of nitrogen and pyraclostrobin showed significant differences for all parameters except the female flowering, flowering male, age knob and seed weight and amylose content. Treatment of 80 kg ha⁻¹ has a plant height and number of leaves best, treatment of 120 kg ha⁻¹ had a value of chlorophyll and protein content best, treatment of 40 kg ha⁻¹ has a flowering female, age knob fastest and best dry weight, treatment 0 kg ha⁻¹ had the fastest male flowering and best levels of amylose and treatment of 160 kg ha⁻¹ has a weight of 100 seeds and the best dry weight compared with other nitrogen treatments. Giving 400 ppm pyraclostrobin significantly different without giving pyraclostrobin, see difference each observation parameters of growth, the production was not significantly different, but the levels of amylose amylose content tend to increase the nitrogen treatment 0 kg ha⁻¹, 40 kg ha⁻¹, 120 kg ha⁻¹ and 160 kg ha⁻¹.