## **ABSTRACT**

Red chili in Indonesia must be regularly increased in production in orderto meet the market demand. The proper treatments including the use of proper planting media and polybag size are expected to have positive result in chili growth and production. This study aimed at investigating the use of planting media and different size of polybag on the growth and the production of chili. Using Randomized Block Design (RBD) Factorial, the experiments observed 2 factors: planting media (M) and polybag size (P). Planting media consists of 4 different treatments: M0 (soil only), M1 (soil+ cow manure + sand), M2 (soil + cow manure + sawdust) and M3 (soil+ cow manure + husk charcoal) with 3 different polybag sizes (P):P1 (20x25 cm), P2 (30x35 cm)and P3 (40x45 cm). The experiments had 12 combined treatments with 3 replications, resulted in 36 experimental units. The results indicated that planting media possessed positive effect on plant height, stem diameter, the number of productive branch, fruit number per plant and fruit weight per plant. Different size of polybag differ on plant height at 21, 28, 35 and 42 days after planting, stem diameter and number of productive branch. Combined treatments M1P3 (soil, cow manure, sand + polybag size 40 × 45 cm are the best treatment for red chili cultivation.

Keywords: Red chili, planting media, polybag, yield