RENDY ATMA SAPUTRA. The Effect Of Shade And Dose Rate Nitrogen Fertilizer On Growth, Yield And Quality Of Red Spinach Plants. Under The Guidance : O. S. Padmini and Suyanto Zaenal Arifin.

ABSTARCT

Red Spinach has a high economic value compared to some other types of spinach. High demand from some supermarkets, hotels, and restaurants. In some developing countries, spinach promoted as a vegetable that could double that as provider of nutrition and a source of public revenue. Superiority nutritional value of red spinach is known as a highly nutritious vegetable because it contains protein, vitamin A, vitamin C, and anthocyanins. To increase the growth, yield and quality of red spinach, researchers used paranet and fertilizer N. The purpose of this research (1) to known the level of shade is best for growth, yield and quality of red, (2) to known the best fertilizer N on growth, yield and quality of red spinach, and to known the interaction of shade and fertilizer N on growth, yield and quality of spinach red. This research implemented in the garden Experiment Wedomartani, Faculty of Agriculture UPN "VETERAN" Yogyakarta, on August until October 2014. The research conducted with field trials were arranged in a split plot factorial design 4x3. Main plot is paranet shade level is N0 (without paranet shade), N1 (25%), N2 (50%), N3 (75%). Sub Plot is fertilizier N level is D1 (45 kg/ha), D2 (90 kg/ha), D3 (135 kg/ha). The results showed an interaction shade treatment and dose of nitrogen to the anthocyanin content, fresh weight per plot. The combination of 50% shade treatment with nitrogen dose of 135 kg / ha gives the best results in anthocyanin content and fresh weight per plot. Shade paranet 50% (N2) are best, especially in affecting plant height (14, 21, 28, 35 days after planting), the number of leaves (14 days after planting), the levels of anthocyanins, root volume, dry weight of plants, plant fresh weight. The dose of nitrogen fertilizer 135 kg / ha affect the number of leaves (21 days after planting), root volume, the levels of anthocyanins, and total fresh weight per plot.

Keywords: red spinach, shade paranet, nitrogen