STUDY ON EFFECTS OF THE GROWTH REGULATOR GA$_3$ TO FRUIT SETTING, YIELD AND QUALITY OF XUAN VAN PUMMELO IN TUYEN QUANG PROVINCE

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Summary

The results of study on effect of spraying GA$_3$ at different concentrations on Xuan Van pummelo 9-10 years old in 2015 - 2016 in Xuan Van commune, Yen Son district, Tuyen Quang province showed that: The GA$_3$ spray increased fruit setting from 0.41 to 1.11% compared to control treatment. In which spraying GA$_3$ at the concentration of 50 ppm had the highest rate of fruit setting (1.95% - 2.08%) increased the fruit setting from 0.92% to 1.11%, the fruit yield reached the highest (190.1- 199.8 kg/tree). The different concentrations of GA$_3$ were significantly at 95% confidence level during the growth periods. Spraying GA$_3$ at concentrations from 50 ppm to 90 ppm resulted in a decrease in number of seeds per fruit, in which spraying of GA$_3$ at 90 ppm reduced two-thirds of seeds per fruit (40.9 per 130.2 seeds per fruits in 2015 and 38.3 per 128.2 seeds per fruits in 2016). However, the yield of the treatment with GA$_3$ 90 ppm was the lowest in the treatments at different concentrations, difference was statistically significant at 95% confidence level. Spray GA$_3$ did not affect the quality of Xuan Van pummelo through the dry matter content and nutrient content of fruit pummelo.

Keywords: Xuan Van pummelo, GA$_3$ growth regulator, fruit setting, yield, Tuyen Quang province.