

The Effect of Shading and Calcium Cyanamide Treatment on the Yield of Chayote Shoot in Summer¹

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Abstract

The shoot of chayote [*Sechium edule* (Jacq.) Swartz] is one of the important summer vegetables in Hualien, and its production area accounts for 46% in Taiwan. With climate change, the temperature in summer is gradually increasing, which leads to weakness or even death of chayote during summer time. In order to examine the benefits of shading treatments on the yield of chayote shoot in summer, this study used 50% and 70% shading treatments in the field, and the cumulative yield and the edible shoot traits of chayote were investigated. In addition, because the weakness and death of plants is usually on the same location, the experiment also used calcium cyanamide in the soil to investigate the effect on the plot cumulative yield and the plant weakening index. The effect of shading treatments starts to reveal the significant differences with the control in July. The cumulative yield of 50% shading treatment was from 1,339 g to 2,414 g, more 80.3%, and the control 870 g to 1,125 g, 29.3%. Meanwhile, the cumulative yield of 70% shading treatment was from 997 g to 1,566 g, more 57.1% and the corresponding control from 716 g to 818 g, 14.2%. The effect of calcium cyanamide treatments showed the significant difference with the control in August. The plot cumulative yield in calcium cyanamide treatments was 16,492 g, 1.7 times more than the control, 9,610 g. The application of calcium cyanamide could significantly improve the growth of chayote shoot in summer.

Keyword: Hua-lien, Ji-an, soil treatment, plant weakness, calcium cyanamide

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