

Title Easy-maintenance long-lasting yield system (ELLYs) for cut *Anthurium*
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Abstract

We have been studying the development of an efficient and economical cultivation system for cut *Anthurium* called “ELLYs” (easy-maintenance long-lasting yield system). We conducted experiments to determine the effects of (i) the angle of planting, (ii) intermittent mist, (iii) type of medium on the growth of *Anthurium*. *A. andreanum* grew best under the conditions of a slope angle of 60 degrees with an intermittent mist irrigation using rockwool medium. On the basis of these results, we verified ELLYs’ practicality. The inclination bench used was an A-frame structure (150 cm wide, 300 cm long and 130 cm high) with a slope angle of 60 degrees, allowing transplanting on both sides. The bench was covered with two layers of plastic nets and young plants were transplanted onto it. Intermittent mist was automatically supplied. A slow-release fertilizer and fused magnesium phosphate were applied yearly. By applying of this system, an increase in yields and a decrease in cost are achieved. This system has the following merits: Compared with the bed or pot cultivation, the use of ELLYs allows a 2-fold cultivation area; therefore, the yield per unit area of cut *Anthurium* increases. The slope creates cultivation conditions suitable for *Anthurium*’s growing habit and minimizes water loss. Owing to the use of an automated irrigation system and the low fertilization frequency, the method is labor-efficient and has a low cultivation cost. Compared with flat cultivation, the use of ELLYs is beset with problems about the distributions of light, water and fertilizer for slope cultivation. We analyzed and discussed the problems.