In vitro media for seed germination and seedling development of *Phalaenopsis* Minho Valentine 'Taisuco' were studied. Seeds from mature capsule of 5 months old were germinated on testing media. After germination for 2 months, the protocorms on semi-solid modified VW medium with 10 g/l table sugar without banana and activated charcoal showed the most development with highest growth index at 224.40. They also had the best development as seedlings in medium with activated charcoal in 2 months after transplanted. For the experiment on seedling growth culture media, the results showed that seedlings had similar sizes on 6 media of ; 1) modified VW, 2) macroelements of MS, 3) macroeiement of Knudson C, 4) 3.5 g/l Hyponex®, 5) 1 g/l of 21-21-21 orchid fertilizer with 1 capsul/l multivitamins Viterra-M® and 6) 20-10-20 orchid fertilizer with 1 capsul/l multivitamins Viterra-M®.

In the study on the use of amino acid and vitamin, instead of coconut water and potato, and its result on seedling growth showed that the VW medium with 2 ml/l Banner Protein®, 10 ml/l multivitamins Nutroplex® and 50 g/l blended banana gave higher fresh weight, leaf length and root number of seedlings . The last experiment on seedling growth under 4 light sources showed that they had larger sizes under natural light (light intensity 6.78 μmolm^{-2}s^{-1}), Grolux tube (light intensity 36.40 μmolm^{-2}s^{-1}) and fluorescent tube (light intensity (32.87 μmolm^{-2}s^{-1}) and smaller sizes under low intensity of LEDs light (3.41 and 5.52 μmolm^{-2}s^{-1}) .

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Student's signature	Thesis Advisor's signature	