

**MORPHOGENESIS OF *Capsicum frutescens* Linn. SEED IN RICE  
WATER TISSUE CULTURE MEDIA**

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## ABSTRACT

### MORPHOGENESIS OF *Capsicum frutescens* Linn. SEED IN RICE WATER TISSUE CULTURE MEDIA

Rice water contents variety of vitamins and minerals. The starch from the rice water encourages the growth of beneficial soil bacteria to plant. The rice water consist some amount of nitrogen, phosphorus and potassium that will enrich mineral. Basic media that are frequently used in tissue culture include Murashige and Skoog (MS) media. Reduction of culture media costs is continually targeted in large-scale of MS media Therefore in this research, the effectiveness of rice water usage as added supplement or as alternative nutrients resources for seeds germination of *Capsicum frutescens* L. are studied. The objectives of this research were to investigate the seed germination rate in different ratio of rice water in basal MS media and to determine the rate of *Capsicum frutescens* L. growth in rice water media with different concentration of Naphthaleneacetic acid (NAA) and 6-Benzylaminopurine (BAP). In this research study had showed that seeds in the treatment consist of rice water germinate faster rather than treatment without rice water added. After 14 days, treatment E (100% rice water) and treatment B (70% MS media and 30 % rice water) showed all the 60 seeds are germinated. Among seeds in pillbox which consist of rice water and hormone of NAA and BAP, amount of BAP 1.0 mg/l resulted with five seeds out of ten seeds were well germinated compare to the other seeds exposed to NAA (0.5 mg/l), NAA (1.0 mg/l), and BAP (0.5 mg/l). In a conclusion, this study showed that rice water can be the added as supplement to MS media and act as alternative nutrient sources for the seeds to germinate. BAP hormone assists the shoot growth from the seeds.

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