

**MORPHOGENESIS OF *Solanum lycopersicum* IN RICE WATER TISSUE  
CULTURE MEDIA**

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## ABSTRACT

### MORPHOGENESIS OF *Solanum lycopersicum* IN RICE WATER TISSUE CULTURE MEDIA

*Solanum lycopersicum* are well-known around the world for its economical and medicinal values. In this research, rice water media is used to replace the usual usage of MS media in *in vitro* germination of *Solanum lycopersicum*. The objectives of this study were to investigate the effect of rice water media in the germination of seed culture of *Solanum lycopersicum*, to identify the presence of callus in *Solanum lycopersicum* during morphogenesis and to study the effect of NAA and BAP hormone on *Solanum lycopersicum* morphology during regeneration process. Five media treatments were used in this study which are Treatment A as control that contain 100% ricewater media, Treatment B contain 70% MS media with 30% rice water, Treatment C contain 50% of MS media and rice water, Treatment D contain 70% of rice water and 30% of MS media and Treatment E contain 100% of rice water media. For Hormone media treatments, 5 treatments are being used in which each treatment contain different concentration of NAA and BAP. The findings from this study showed that rice water media showed the same effect as the MS media on the tissue culture of *Solanum lycopersicum* where the germination day and frequency of germination is the highest than the others. As a conclusion, in the future, rice water media could replace the usage of MS media in the tissue culture of *Solanum lycopersicum* because the use of rice water is more cost-effective. However, more research and study should be done on the rice water to find out the effect of rice water to the other species of plants.

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