MORPHOGENESIS OF *Capsicum annuum L.* IN RICE WATER TISSUE CULTURE MEDIA

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ABSTRACT

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This study is specifically concerned about the growth of *Capsicum annum L.* in new introduced rice water media. The problem statement of this research is to increase production of this *Capsicum* species and to produce virus-free plant. The objective of this study is to investigate seed germination rate in different ratio of rice water in MS media. Secondly, to study the growth and morphology changes of *Capsicum annuum L.* in rice water media with different concentration of hormone NAA and BA. Last objective is to identify the presence of callus during *Capsicum annum L* morphogenesis in rice water media contain hormone. Five media treatments were used in this study which were Treatment A as control that contain 100% rice water media, Treatment B contain70% 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, five 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-eefective. 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.

TABLE OF CONTENTS

LIST OF FIGURES