

ROLE OF NEW MIXTURE OF PLANT BOOSTER IN
Solanum lycopersicum **AND** *Capsicum annuum*
SEED CULTURE

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ABSTRACT

ROLE OF NEW MIXTURE OF PLANT BOOSTER IN *Solanum lycopersicum* AND *Capsicum annuum* SEED CULTURE

Solanum lycopersicum and *Capsicum annuum* has become an important cultivated plants all around the world with tremendous economic values in agricultural and medicinal field. In this study, plant booster as proved to have worthy effects in agricultural field as proposed by MARDI has been applied to these species using *in vitro* method. The objectives were to evaluate the effects of new mixture of plant booster on germination, growth and callus presence on both *S. lycopersicum* and *C. annuum* seed culture. There are seven treatments were used throughout this study which are Control, A, B, C, D, E, F. By using MS media and addition of plant booster that have elimination of few organic supplements with different concentrations in treatment C (Coconut sugar, 10ml/L), D (Coconut sugar, 15ml/L), E (*Ipomoea aquatica*, 10ml/L), F (*Ipomoea aquatica*, 15ml/L) whereas treatment A (none elimination, 10ml/L) and B (none elimination, 15ml/L). Findings showed that both species has taken the shortest period to germinate in control which is three days for *S. lycopersicum* and 4 days for *C. annuum* seed germination. Besides, growth evaluation of *S. lycopersicum* and *C. annuum* in regards of height has also proven to be suitable in control media with highest mean value which were 5.22 ± 1.03 and 2.97 ± 0.52 respectively. There were no presence of callus was observed throughout this study. In analysis of data by using one-way ANOVA, there were significant differences between the types of the treatments among the groups. As a conclusion, control media has the best effect on stimulating the germination and growth of *S. lycopersicum* and *C. annuum* while application of plant booster has inhibited the growth and germination of both plants. However, future studies on application of plant booster are required to investigate the effects of these organic supplements on another species in plant tissue culture.