

The effect of tryptone and tomato juice addition on the growth performance of strawberry (*Fragaria ananassa*) explant under in vitro condition

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Author Order	2 of 4
Accreditation	2
Abstract	<p>Strawberries are a fruit commodity that has high economic value. The obstacle in strawberry production is the lack of high-quality seed availability with disease-free properties. Tissue culture offers a promising solution to increase both the quantity and quality of strawberry seeds. This study aims to assess the effect of different concentrations of tomato juice and tryptone on the growth of strawberry explants under in vitro growing condition. The research was conducted at the Plant Breeding Laboratory, Faculty of Agriculture, Universitas Jenderal Soedirman, from December 2022 to May 2023. The study employed a Completely Randomized Design (CRD) with two factors. The first factor was tomato juice (Z), consisting of Z0 = 0 mL/L, Z1 = 50 mL/L, Z2 = 100 mL/L. The second factor was tryptone (T), consisting of T0 = 0 g/L, T1 = 1 g/L, T2 = 2 g/L, T3 = 3 g/L. The addition of 50 mL/L tomato juice solely (T0Z1) resulted in the highest plant height, number of leaves, number of branches, and leaf width. Meanwhile, the addition of 2 g/L tryptone solely showed the highest germination rate.</p>
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