

Effect of Natural Additives on In Vitro Growth Medium of Strawberry 'Seolhyang'

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배지내 천연유기물 첨가가 딸기 “설향” 배양묘 기내 생육에 미치는 영향

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Strawberry which is the genus *Fragaria* under family Rosaceae is one of the most important fruit plants for both fresh consumption and food processing in the temperate and subtropical countries. Propagation of strawberry is achieved either through runners or by in vitro micropropagation. Meristem tips, generally obtained from runners of virus-free plants, are commonly used to establish in vitro cultures, which are employed for mass propagation or as a source of plant material for regeneration and transformation experiments. This study was conducted to determine the optimal natural additives strength to improve sprouting shoot rate of apical meristem of strawberry 'Seolhyang'. Strawberry apical meristem at size (0.2 mm to 0.3 mm) with leaf primordials were cultured on the 1/3MS(Murashige & Skoog) medium supplemented with five natural additives such as coconut milk, maple sap, banana powder and peptone. The sprouting ratio and growth characteristics were evaluated after eight weeks after in vitro culture. Shoot ratio of 'Seolhyang' apical meristem was 72.9% in 1/3MS medium supplemented with maple sap. On the other hand, the low shoot ratio was observed 47.7% in 1/3MS medium supplemented with banana powder. Shoot length was different as natural additives but numbers of leaf was not significantly different among the natural additives. As a result, the sprouting ratio and plant growth were enhanced effectively in 1/3MS medium with maple sap compared to the others.

Key Words : Strawberry, Apical meristem, Natural Additives

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