

Ulasan masalah pencoklatan pada kultur jaringan

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Abstrak

Browning Problems in Tissue Culture. Sri Hutami. Several tropical plant species contain high concentrations of phenolic compounds, which become oxidised when their cells are wounded or when the plant parts become senescences. In tissue culture, the phenolic compounds usually leach into the medium from the cut surfaces of explants. The phenolic compounds caused the culture medium turns to dark brown in colour due to oxidation. This is detrimental to the culture, because it causes the isolated tissue fails to grow. The browning of tissue culture and the medium can often be prevented by one of the several different approaches, such as by removing the phenolic compounds produced, modifying the redox potential, inactivating phenolase enzymes, reducing phenolase activity and substrate availability, as well as pre-treatments by soaking and preconditioning on a basal medium.