

PLANT REGENERATION FROM COTYLEDON CALLUS CULTURE OF TEA

Razia Latiff, Poorna Seneviratne and P.V. Arulpragasam
Tea Research Institute of Sri Lanka, Talawakele.

Studies were undertaken to investigate conditions that would be suitable for high frequency of somatic embryogenesis and plant regeneration in tea using callus cultures derived from cotyledon tissues.

Pieces of cotyledons were first established and made to grow in agitated liquid media and then transferred to solid callusing media, where they showed good growth and callus formation. These cultures when grown under higher light intensity developed embryoid-like structures, which later turned green. In sucrose enriched media the frequency of embryogenesis increased appreciably. However, further development was not observed until they were transferred to the regeneration media, which contained higher levels of cytokinin and low concentrations of auxins. After 8 - 10 weeks in the regeneration media the embryos developed into plantlets with distinct shoot and root. In some instances only root formation was observed. The plantlets have been successfully acclimatized and planted into soil.

10th Dec. 1987 (Thursday) 09.15 a.m. - 09.30 a.m.