

## **The regeneration of leafy spurge (Euphorbiaceae) from cell suspension cultures**

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Plants were regenerated from cell suspensions in one of seven accessions of leafy spurge. Exogenous growth regulators altered growth patterns, but not in any consistent manner. The best procedure was transfer to liquid Murashige and Skoog medium without 2,4-D under fluorescent lamps (200-300  $\mu\text{E}/\text{m}^2/\text{s}$ ) for about 3 weeks for roots, followed by a transfer to B5 medium without 2,4-D for shoots. Root and shoot initiation were enhanced by light and by washing of the inoculum for complete removal of 2,4-D. From 50 to 67% of the exogenous inorganic nitrogen as nitrate appears essential for root formation. Plantlets were obtained most rapidly under fluorescent lamps with high amounts of red light or with filtered light at transmission maxima of 450 or 650 nm. A brief anatomical description of cell suspensions and regenerated plantlets will be included. Plantlets in vitro had some epicuticular wax platelets (observed with a scanning electron microscope) in cultures grown in liquid medium.