



maintaining cell cultures. The optimum dose of 2,4-D for callus initiation was 2 mg/l while 0.5 and 0.25 mg/l of 2,4-D were appropriate for maintaining the callus and cell suspension, respectively. The basal formulation which resulted in the highest biomass production either in semisolid or liquid conditions was that of B5. The highest growth rate was obtained from culturing C. sublyratus cells in B5 followed by SH and MS media with approximately one fold gradient. The reduction of the high concentration of MS salts to half strength in combination with the full strength of B5 vitamins increased the biomass production by 2 fold. Data obtained seemed to indicate that C. sublyratus cell cultures required low salts but high vitamin content for biomass production.

To assess for secondary metabolite production by C. sublyratus cell cultures, an appropriate thin-layer chromatographic method was developed for the detection of plaunotol both in C. sublyratus leaves and various cultured tissues. Preliminary results indicated that, under suitable condition, C. sublyratus cells were capable of producing secondary metabolites in in vitro cultures, even though plaunotol was not detected in any of the cultures by the method employed. However, a number of callus cultures appeared to produce an appreciable amount of one major metabolite, the identification of which may be of interest.