Influence of silver nitrate (ethylene inhibitor) on cucumber in vitro shoot regeneration

ABSTRACT

The effect of addition of silver nitrate (AgNO3) on organogenesis of proximal and distal cotyledon and hypocotyl explants of five cucumber (Cucumis sativus L.) cultivars was investigated. Distal cotyledon and hypocotyl were unresponsive while only poor shoot regeneration was observed in proximal cotyledon and hypocotyl explants of all cucumber cultivars. The addition of different concentrations of AgNO3 (10, 30 and 50 µM) to the medium, however, induced shoot regeneration in distal cotyledon except Suyo Long cultivar and effectively increased shoot regeneration response as well as the number of shoots per explant in proximal cotyledon and hypocotyl of all cucumber cultivars.

Keyword: Cucumber; Direct shoot regeneration; Silver nitrate; Tissue culture