

IN VITRO OXIDATION CONTROL IN EXPLANTS OF *ANNONA SQUAMOSA* L.

Cynthia C. de Albuquerque¹, Maria J. de M. Marinho¹,
Francisco F. M. Oliveira¹

¹Departamento de Ciências Biológicas, FANAT, UERN, RN, Brazil.

The oxidation is a problem of *in vitro* cultured explants, being initiated by browning of the surface of plant tissues due to the oxidation of phenolic compounds. With the objective of determining the most appropriate methodology for the control of explants oxidation of *Annona squamosa* L., nodal segments (0,5-1,0 cm long) were disinfected, in laminar chamber, by standard methods using ethanol/sodium hypochloride and then rinsed three times with sterile water, inoculated in tubes containing 35 mL of medium, phytohormones free, supplemented with 0,7% agar and incubated in darkness at 25°C±1. The treatments were: T1: MS of salts; T2: MS iron-free; T3: MS + activated charcoal-1,0%; T4: MS + activated charcoal-2,5%; T5: MS iron-free + activated charcoal-1,0%; T6: MS iron-free + activated charcoal-2,5%; T6: ½MS + activated charcoal-1,0%; T7: ½MS + activated charcoal-2,5%; T8: MS iron free + activated charcoal-1,0% and T9: MS iron-free + activated charcoal-2,5%. The pH was adjusted to 5,8 and autoclaving during 15 minutes at 120°C. Were utilized nine treatments, with five replications (three explants/tube for replication), in complete randomized design. Were evaluated the percentual of oxidation and survival explants. Differences between the treatments weren't significant ($P < 0,05$), but the reduction of the salt concentration of the culture medium increased the percentual of survival explants. The percentual of the survival explants was 40% and the oxidation was 60%.

Supported by: UERN, CNPq.

Keywords: Activated charcoal, *Annona squamosa* L., Explants, Oxidation.