

ABSTRACT

The research aims to determine the best method of sterilization to determine the best concentration of 2,4-D and Thidiazuron on sugarcane callus induction and to get sugarcane callus.

The research used a laboratory method which consist of two steps sterilization method and callus induction of sugarcane. Sterilization method consisted of thesee experiment. Each Experiment consisted of 4 treatments. Sterilization materials used were alcohol 70%, Clorox, Tween 20, Detergen, Bactericide and Fungicide.

Callus induction of sugarcane was conducted used single factor desigd with four treatments which arranged in completely randomized design. The treatment were combination of 2,4-D (0, 1, 3, 5 mg/l) and 0,5 mg/l Thidiazuron.

The research showed that the best sterilization method use fungicide and bactericide 2g/l, alcohol 70%, clorox 20%, and 5%, tween 20. The best treatment for sugarcane callus induction were 5g/l 2,4-D + 0,5 mg/l Thidiazuron as shown by the highest percentage of callus (26, 67%) and the emerging of callus (27, 75 days).

Keywords: Sterilitaty , 2,4-D, Thidiazuron, Callus, Sugarcane