TITLE: ELABORATION OF ALTERNATIVE CULTURE MEDIUM BASED ON CELLULOSE

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ABSTRACT

Culture medium are nutritious, which favor the development of microorganisms, enabling them to be identified through their biochemical and metabolic activities. Besides environment conditions as the temperature, pH, humidity, presence or not of oxygen (aerobic and anaerobic condition). For the isolation of fungi, was used plant material in degradation of the soil, being sieved, to separate leaves of particles of sand and clay. The leaves under study went through a washing process and were placed in contact with the potato-dextrose-agar (PDA) culture medium in Petri dishes, where there was a migration of the microbiological material to the middle, it occurring there a purification process (by the technique of repetition) until observing uniform and pure microbiological material, since the filamentous fungi can be seen as a good visual or microscopic appearance. The fungi in the first phase were transferred to Petri dishes with two different culture media:

a) carboxymethylcellulose base (CMC) composition: 3,0 g/L $NaNO_3$, 0,5g/L $MgSO_4$, 0,5g/L KCl, 0,01 $FeSO_4$ x $7H_2O$, 1,0g/L $(NH_4)_2SO_4$, 10,0g/L CMC, 30,0g/L agar nutriente;

b) paper base medium to be recycled (RP): 3,0 g/L NaNO3, 0,5g/L MgSO4, 0,5g/L KCl, 0,01 $FeSO_4$ x $7H_2O$, 1,0g/L $(NH_4)_2SO_4$, 10,0g/L paper, 30,0g/L agar nutriente.

The paper was heated for 12 hours in a water bath at 60 ° C.

The microorganisms were found to have developed fully in the alternative culture media over a period of four days. In addition, it was used in paper, for their treatment, 10g/L, 3,0 g/L $NaNO_3$, 0,5g/L $MgSO_4$, 0,5g/L KCl, 0,01 $FeSO_4$ x $7H_2O$, 1,0g/L $(NH_4)_2SO_4$. The mean volume of dry quantification is 15 days. It was inoculated in triplicates for times of five, ten and fifteen days, checking as the masses of fungi 0,0011g, 0,2230g and 0,3226g. The alternative culture medium is not efficient when the filaments are used in gelatinous form (with added agar nutrient), however the liquid phase is smaller for the growth of fungi.

KEYWORDS: culture medium, fungi, paper