EFFECT OF DICAMBA AND AgNO3 ON FRIABLE CALLI PRODUTION IN MAIZE (Zea mays)

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Fourty-five genotypes from twenty-two maize populations from the CNPMS/EMBRAPA'S Program were tested for callus production. Eight thousand zygotic embryos, 13 to 20 days old and 1.0 to 2.0mm long, were utilized as explant source. Media for embriogenic callus induction were composed of N6 inorganic salts, sucrose (30 g/l), casamino acid (100 mg/l), glicine (30mM), thiamine (15 uM), nicotinic acid (7.5 uM), piridoxine (7.5 uM), myo-inositol (550 uM), proline (25 mM), supplemented with Dicamba (15 or 30 uM) and presence or absence of AgN03. Callus types arising from the explants were evaluated twenty-one days after embryo plating. The interaction for genotype x induction medium, was significant, indicating that the behaviour of some genotypes for callus production was medium composition-dependent. Fourtwo genotypes produced embriogenic calli. Twenty-six genotypes of these fourty-two produced type II friable callus in a frequency of 1.3 to 41.4 %. Type II callus production improved as Dicamba addition increased from 15 to 30 uM, and the addition of AgNO3 (15 mg/l). Additional improvement in the production of friable embriogenic callus was observed due to the accumulative effect of AgNO3 and Dicamba (30 uM), indicating that this media composition is better for friable callus production