Pengaruh media dasar ms dan n6 terhadap perkembangan embrio somatik pada kultur meristem jahe (zingiber officinale rosc.): The Effect of MS and N6 Basal Media to Somatic Embryo Development in Meristematic Culture of Ginger (Zingiber officinale Rosc.)

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Abstrak

This study was performed to evaluate the development of somatic embryo from embryogenic calli of ginger meristem culture. Completely randomized design was applied, replicated 4 times. Embryogenic calli from meristem tissue of inner shoot bud of rhizome obtained on MS medium containing 100 mg/L glutamine, 2% sucrose with the addition of 1.0 mg/L 2,4-D and 3.0 mg/L BA, were subjected to proliferation medium, MS and N basal media containing 3% mannitol. Then, transferred into somatic embryo maturation medium, either MS or N basal media supplemented with 6% sucrose. The number of somatic embryos-formed significantly affected by the proliferation medium applied. The highest number of somatic embryos (about 82.0 per 1 g friable calli) was achieved on the MS medium, 4 weeks after incubation. In addition, the optimum growth of embryogenic calli containing somatic embryos was obtained on MS and N medium supplemented with 6% sucrose. There were significantly difference between the media applied (MS and N) to somatic embryos maturation. The highest number of mature somatic embryos (57.2 embrios) was achieved on the MS medium, 18 days after incubation.