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(54) Title of the invention : IMPROVED AND RAPID CALLUS PRODUCTION METHOD FOR FRITILLARIA ROYLEI

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(57) Abstract :

The present disclosure relates to rapid and efficient method for callus production and proliferation of *Fritillaria roylei*. The said method provides high survival rate in surface sterilization step and 100% callus induction and comprises surface sterilizing the bulb explant; transferring explants, under axenic conditions, to callus induction media (MS (full strength) + TDZ (0.5-2 mg/L) + Picloram (2-4 mg/L) + Sucrose (30g/L) + Agar (8g/L); incubating the culture vessel at 15°C and 25 temperature in the dark with a relative humidity of 70-80% for 20-25 days. The 15°C induced callus is shifted and subcultured to 25°C for proliferation, it gives a high-frequency proliferation rate, with an exponential growth in the callus biomass over initial fresh weight.. Also, if the callus is not sectioned and sub-cultured directly in fresh medium in light conditions, it forms an embryogenic callus, and then bulblets and plantlets regeneration occurs.

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