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P 14 Effect of media additives on micro propagation of Gerbera (*Gerbera jamesonii* var. *Kilimanjaro*)

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Floriculture has been identified as one of the most profitable agro- enterprises. Gerbera (*Gerbera jamesonii* var. *Kilimanjaro*) is one of the most important profitable cut flowers, grown in Sri Lanka for export as well as for the local market. Export figures of Sri Lanka clearly shown that we are not in line with the world trend though Gerbera have higher demand in the present floricultural market. One of the major constrains in expanding Gerbera cultivation is limited supply of quality planting material. Micro propagation techniques can be successfully applied for mass propagation of Gerbera. Therefore, the present study was undertaken for development of efficient and commercially viable tissue culture procedure for callusing of *Gerbera jamesonii* var. *Kilimanjaro*. The explants (Capitulum) were collected from mother plants maintained inside a polytunnel in Royal Botanic Gardens in Peradeniya, which were treated with balanced fertilizer mixture (20:20:20) once in fortnight . Detached explants were well cleaned using fungicidal solution and running tap water, then sterilized with 25% Clorox and 70% alcohol solution and positioned on the Murashige and Skoog (MS) media supplemented with different organic additives; Coconut water 100 ml⁻¹, Banana pulp 50 gl⁻¹, Tomato pulp 50 gl⁻¹ and Carrot pulp 50 gl⁻¹) with two levels of Thidiazuron [TDZ] (0.5 mg/1, 0.1 mg/1) and constant level of IAA (0.5 mg/1). Control experiment was done without additives. Percentage of callusing and regeneration were recorded weekly intervals. Results indicated that explants which were cultured on modified MS medium supplemented with Carrot pulp as additive is the highest recorded callus formation and shoot initiation (P<0.001).

Keywords: gerbera, media additives, callus, regeneration