OPTIMIZATION OF METHODS FOR FLOWER DRYING

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Dried flowers are used in floral arrangements and indoor decorations when fresh flowers are in limited supply. Flower drying changes the natural colour and fragrance of the floral materials and Sri Lanka lacks a suitable drying technique to preserve colour and fragrance of flowers. A laboratory experiment was conducted to select the best drying technique/s and drying duration for flowers of marigold (*Tagetes erecta* L.), roses (*Rosa* spp.), jasmine (*Jasminum* spp.) and yesterday, today and tomorrow (*Brunfelsia pauciflora*). Four treatments (r=3) were arranged in Complete Randomized Design for all species. The four drying methods used were air drying, silica gel, oven drying at 46 ^{0}C and 60 ^{0}C. Dry weight, surface area of flowers and petals, colour, fragrance and texture of flowers and petals were measured at three day intervals. Parametric data were analyzed by ANOVA and Tukey's post hoc ($P<0.05$). Rank data were analyzed by using Friedman test to determine the significance of different drying methods. Results revealed that silica drying yielded the best quality dried flowers for *Brunfelsia pauciflora* and *Tagetes erecta* L. Oven drying at 46 ^{0}C for 30 minutes produced best quality flowers for *Rosa* spp. and *Jasminum* spp. in terms of colour, fragrance and at full bloom and half bloom stages. Optimum durations of drying was nine days for flowers of *Tagetes erecta* L. at half bloom and full bloom stages, six days for flowers of *Jasminum* spp., *Brunfelsia pauciflora* and *Rosa* spp.

Keywords: *Brunfelsia pauciflora*, Drying, *Jasminum* spp., *Rosa* spp., *Tagetes erecta* L.