

Abstract:

The flowers were dried in an electrically operated hot air oven by embedding them in two desiccating media (river sand and silica gel) and keeping them at controlled temperatures of 30, 40 and 50 °C for 24, 36 and 48 hours. Observations were recorded on weight (g), moisture (%) and carotenoid contents (mg/100 g) of fresh and dried flowers. Appearance score was also given visually on the basis of colour, cupping and stiffness of the petals. The weight of fresh and dried flowers was in the range of 1.25-1.44 g and 0.13-2.6 g with the moisture content of 87.4-88.8% and 9.2-15.7%, respectively. It was observed that weight and moisture content of dried flowers decreased significantly with an increase in oven temperature and duration of drying. The percent decrease was significantly more in silica gel as compared to river sand. The carotenoid contents were 3.42-3.62 mg/100 g in fresh and 2.30-2.90 mg/100 g in dried flowers which decreased with the increase in temperature and duration in oven for both media. Silica gel was found better as per cent decrease in carotenoid contents was significantly less as compared to sand. Best quality of dried flowers were obtained by embedding them in silica gel and keeping at 50 °C for 48 hours in the oven as the per cent decrease in weight and moisture content was maximum and per cent decrease in carotenoid content was also less. The visual score for these flowers was also found to be best as compared to other treatments.