

**Title** Influence of packaging material, storage condition and storage duration on vase life of tuberose 'Calcutta double'

**Author** N. Roychowdhury, S. Chakrabarty (Das) and P. Munsii

**Citation** ISHS Acta Horticulturae 884:359-364.2011.

**Keywords** vase life; storage duration; storage condition; packaging

#### **Abstract**

In general, as cut flower, tuberose bunches are enclosed in paper or polyethylene sleeves or covers while transporting to distant markets. However, there are very few reports on the effect of different packaging materials, including banana leaf (as frequently used by local farmers) and their interactions with storage temperature, storage duration and subsequent physiological implications under West Bengal conditions. Addressing this issue, the present experiment was conducted at the laboratory of the All India Coordinated Research Project (AICRP) on Post Harvest Technology at Bidhan Chandra Krishi Viswavidyalaya (BCKV), to study the effect of packaging and storage on vase life tuberose 'Calcutta Double'. Data were analyzed using a completely randomized design. The study revealed that spikes wrapped with banana leaf exhibited maximum vase life with maximum floret opening and least amount of floret wilting. The modified atmosphere inside such packages was having reduced oxygen and elevated carbon dioxide (CO<sub>2</sub>), either due to selective permeability to gases (for plastics) or due to active respiration (of banana leaf tissue). Further, spikes stored for 24 hours, especially at 10°C exhibited least floret wilting with better turgidity throughout the vase life. Retarded rate of respiration, transpiration, ethylene production and entire metabolism of the flower tissue as a whole was facilitated by low temperature (during storage) that was exhibited by better performance of flowers in vase.