Asian J. of Bio Sci. (April, 2008) Vol. 3 No. 1 : (159-162)

Effect of different packing methods on vase life and quality of cut flowers in tuberose (*Polianthes tuberosa* L.) cv. Double

D. K. VARU* AND A.V. BARAD
Department of Horticulture, College of Agriculture, Junagadh Agril. University, JUNAGADH(GUJARAT) INDIA

(Accepted : February, 2008)

A study was carried out to evaluate the role of packing methods on vase life of tuberose. The packing methods in which the spikes wrapped in 200 gauge polyethylene sheet (P_2) were found for longest vase life of spike, maximum uptake of water, lowest loss-uptake ratio, better freshness as well as lowest wilting of florets and highest percentage of opened florets. However, packing method P_2 was found at par with wrapping the spike in metal paper (P_7). Similarly, the poor response was obtained by the packing in craft paper (P_6) and control (P_8) in which the bunch of spikes were packed in CCBB without wrapping.

Key words : Packing, Tuberose, Spikes, Polyethylene, Sheet

INTRODUCTION

Flowers are one of the most important and unique gifts of nature. They are the adornments of the world with their valuable aesthetic, environmental, economic and medicinal properties. The estimated area under flower growing in the country is about 1.06 lakh hectares (Jain *et al.* 2003). The cut flowers like rose, gladiolus, tuberose, chrysanthemum etc. have commonly and frequently demanded in both the local as well as international market. Among them, tuberose is one of the most important cut flower. The tuberose is grown on a wide range of soil and climatic conditions, but it flowers best in warm and humid climate. Among four types of tuberose, the Double type is mainly cultivated for cut flowers. The post harvest management is one of the most important factors for cut flower industries. The best quality of the spike is very important for marketing point of view. Improvement of the keeping quality and enhancement of vase life of cut flowers are important areas of floricultural research. Presently, our cultivators are not aware about standardized post harvest technology including treatment of packing methods and materials extends the vase life. So it is great need to standardize the packing methods.

MATERIALS AND METHODS

The healthy and good appearance of spikes was used for this investigation. The trial was conducted with 8 different packing methods during the year 2004 in C.R.D. (Factorial) design with three replications at P.G. laboratory, Department of Horticulture, Junagadh Agril. University, Junagadh (Gujarat) and the same was repeated for second year (2005). The spike were packed in different packing methods viz., wrapping the spike in 100 gauge polyethylene (P_1), 200 gauge polyethylene (P_2), radium paper (P_3), cut flower stem is kept in water saturated cotton then wrapped with polyethylene sheet (P_4), corrugated sheet (P_5), craft paper (P_6), metal paper (P_7) and control (P_8) in which the bunch of spikes were packed in CCBB without wrapping. The wrapped bunch of spikes were arranged in CCBB and then the boxes were kept in cooling chamber for 72 hours at 15-20^{0}C, which was considered as cargo (transportation) period. After storage period (72 hours), the boxes were opened carefully and the spikes from the different wrapping materials were kept in vase container as distilled water for vase life. Necessary observations were recorded during vase life period.

RESULTS AND DISCUSSION

Vase life of spike :

The packing in 200 gauge polyethylene sheet (P_2)shown significantly longest vase life (14.43 days) followed by P_7, whereas, minimum vase life (10.64 days) was noticed at control (P_8)(Table 1).

The result may be due to polyethylene sheet and metal paper, attributed to provided modified atmosphere, which increased the CO_2 concentration as well as humidity and slow down the transpiration inside the package leading to slow down the respiration process (Hardenburg, 1971). Furthermore, it might have higher

* Author for Correspondence