## **Glycerinization in Ornamental Foliage Suitable for Value Addition**

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Abstract—There are several benefits of using glycerine to preserve flowers. Petals and foliage preserved with this method remain supple. Although they remain soft, these leaves and flowers last for several years and may be wiped clean without fear of damage. Glycerine drying is most suitable for foliage preservation due to its osmotic nature, therefore; the foliage thus preserved and retains flexibility, shape and texture. Finding out an appropriate concentration of glycerine for better quality of foliage dehydration is important to support the entrepreneurs in the competitive global flower market. A dried flower arrangement without foliage may seem stiff and unnatural. Leaves add much to an arrangement and can easily be preserved by a process known as "glycerinizing." This technique makes the leaves and stems soft, pliable and long-lasting so they may be used over and over.

Studies were carried out in the Division of Floriculture and Landscaping, ICAR-IARI New Delhi to standardize the glycerine preservation technology for foliage of silver oak, cordyline, asparagus and fern under laboratory conditions. The foliage was subjected for glycerinization by immersing and uptake methods with different combinations of glycerine and water. Observations were made for moisture loss (%), time taken for drying and sensory parameter like texture, shape retention, brittleness, overall acceptance of the cut foliages etc. and were subjected to analysis of variance. In case of silver oak treating the foliage with 1:3 ratio of glycerine and water found better for minimum moisture loss (%) while 1:2 ratio of glycerine and water was suitable for minimum days taken for drying in both the methods i.e. full dip and uptake and for most the qualitative parameters 1:3 ratio of glycerine and water were recorded better score in silver oak. For asparagus 1:3 ratio of glycerine and water with full dip method found most suitable for quantitative and the qualitative parameters were also found best in 1:3 ratio of glycerine and water found suitable for minimum moisture loss (%) and uptake. In case of cordyline 1:3 ratio of glycerine and water found suitable for minimum moisture loss (%) and uptake method with1:3 ratio of glycerine and water found suitable for minimum moisture loss (%) and uptake method with1:3 ratio of glycerine and water found suitable for minimum moisture loss (%) and uptake for drying. Sensory parameters revealed similar finding as quantitative parameters. Treating the foliage of fern of 1:3 ratio of glycerine and water with full dip method were found better for quantitative parameters studied as well as for most of the qualitative parameters also.

From the present studies it is concluded that 1:3 ratio of glycerine and water was found most suitable for most of the species studied followed by 1:2 and as far as the method of glycerinization is concerned for asparagus and fern full dip method and for cordyline and silver oak uptake method was found better for most the parameter studied.