EFFECT OF FLORAL FOODS ON POSTHARVEST PERFORMANCES OF VIOLET WATER LILY (*Nymphaea X erangae*)

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Violet water lily (*Nymphaea X erangae*) has a high demand for religious purposes and in floral decorations. The presence of a relatively short postharvest life is one of the main problems to popularize this flower in floral decorations. Therefore, the current study was designed to investigate the effect of floral foods (FF) on postharvest performances of violet water lily. Freshly harvested violet water lily flowers were tested using four treatments with twelve replicates in each. Well-water (control), 0.5% sucrose + 0.25% vinegar + 0.01% $CaCl_2$ in well water (FF1), 1.5% sucrose + 0.6% vinegar + 0.02% $CaCl_2$ in well water (FF2), 2% sucrose + 0.8% vinegar + 0.03% $CaCl_2$ in well water (FF3) were used as treatments. Reduction percentage of flower diameter and fresh weight, days to change flower color, days for petal drop, and vase life were recorded. A sensory study was done to identify consumer acceptance for appearance, colour, odour, and texture with the help of 30 untrained panel members. Percentage reduction of flower diameter was significant (42.41 ± 6.25) on the 4th day in FF2. On the 3rd day and 4^{th,} the day, FF1 recorded a significantly least fresh weight reduction percentage (2.10 ± 3.30) and (15.07 ± 3.90) respectively. Vase life was increased in flowers under the FF1 (5 days) than that of in the control (2 days). The FF1 was selected as the best from the sensory evaluation. In conclusion, the floral food made using 0.5% sucrose + 0.25% vinegar + 0.01% $CaCl_2$ in well water can effectively be used for extending the postharvest performance of the violet water lily.

Keywords: Floral decorations, Flower diameter, Fresh weight reduction, Sensory evaluation, Vase life