

**Title** Effect of different modified atmosphere packaging (MAP) films and cold storage temperatures (5, 10 and 15°C) on keeping quality of gerbera (*Gerbera jamesonii*) flowers

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#### **Abstract**

Effect of different Modified Atmosphere Packaging (MAP) films like polypropylene (PP), High Density Polythene (HDPE) and Low Density Polythene (LDPE) and cold storage temperatures (5, 10 and 15°C) on flower quality and vase life of gerbera flowers was investigated. Polypropylene (24 µ) and HDPE (24 µ) films used for MAP at 5°C cold storage temperature were found promising in maintaining flower quality of gerbera during and after storage. The quality of cold stored flowers (without MAP) deteriorated with reduced flower size and increased scape bending. MA (PP and HDPE) stored gerbera flowers at 5°C temperature showed significantly lower physiological loss in weight and scape bending after storage and maintained higher water uptake with improved flower size, petal length and width during vase life after seven days of storage as compared to cold stored (without MA) gerbera. Membrane stability index (MSI) of the petal tissue was also significantly higher of MA (PP and HDPE) cold (5°C) stored gerbera on 6<sup>th</sup> day of vase life which delayed the petal senescence and enhanced the vase life as compared to cold stored (without MA) gerbera.