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Maximize Water Uptake and Minimize Water Loss of Gerbera with OASIS® Floral Foam Maxlife + Floralife® Floral Foam Food

Introduction

It has been observed that gerbera daisies in floral foam have a poor history of longevity and appearance. Past Floralife studies have demonstrated that gerbera flower longevity in floral foam arrangements can be maximized by using OASIS® Floral Foam Maxlife and Floralife® Floral Foam Food. In addition to previous studies, Floralife wanted to study further the affects of water uptake in the gerbera flowers; including the amount of water or Floralife® Floral Foam Food solution that evaporates from surface of the OASIS® Floral Foam.

Method

Three bricks of OASIS® Floral Foam Advantage Plus (ADVP) and OASIS® Floral Foam Maxlife (ML) were saturated in plain water and placed in design trays. In addition, 3 bricks of OASIS® Floral Foam Maxlife were saturated with Floralife® Floral Foam Food (FFF) and placed in design trays. The foam + trays were weighed to determine the pre-flower weight. Then, 3 or 4 stems each of 3 cultivars of gerbera daisy were inserted into each brick (11 flowers per brick). The foam + tray + flowers were weighed at the beginning of the test and then every 24 hours for 5 days.

Cultivars used in the experiment.

Gerbera Facination (pink)
Gerbera Indian Red (red)
Gerbera Express (hot pink)

Treatments were as follows:

1. OASIS® Floral Foam Advantage Plus
2. OASIS® Floral Foam Maxlife
3. OASIS® Floral Foam Maxlife + Floralife® Floral Foam Food

An additional 3 foam bricks were saturated per treatment and placed in design trays (bricks contained no flowers). The weight of these "blank" foam treatments was determined at the beginning of the test, then every 24 hours for 5 days. No water was added to any of the tray reservoirs during the test.

From these measurements we were able to estimate the following:

1. Water loss from the foam brick due to surface evaporation over time
2. Water uptake by flowers over time

The number of wilted flowers in each brick was determined every 24 hours for 5 days and the % of wilted flowers over time was determined for each treatment. On day 5, the flowers from each treatment were removed from the foam and weighed. The average fresh weight loss over the 5-day period then was determined for each treatment.

Results

Over a 5-day period, approximately 425 ml of water per foam brick was lost due to surface evaporation. This translates into an approximate water loss of 20% over a 5-day period. OASIS® Floral Foam Maxlife increased water uptake of gerbera over time compared to OASIS® Floral Foam Advantage Plus, and uptake was further increased by soaking OASIS® Floral Foam Maxlife in Floralife® Floral Foam Food. Likewise, OASIS® Floral Foam Maxlife reduced the % of wilted flowers over time compared to OASIS® Floral Foam Advantage Plus, and this % was further decreased by soaking OASIS® Floral Foam Maxlife in Floralife® Floral Foam Food. Gerbera water loss (%) at day 5 was lowest in OASIS® Floral Foam Maxlife saturated in Floralife® Floral Foam Food treatments.



Day 3: OASIS® Floral Foam Maxlife in Floralife® Floral Foam Food with Facination (pink), Indian Red (red), Express (hot pink) Gerberas

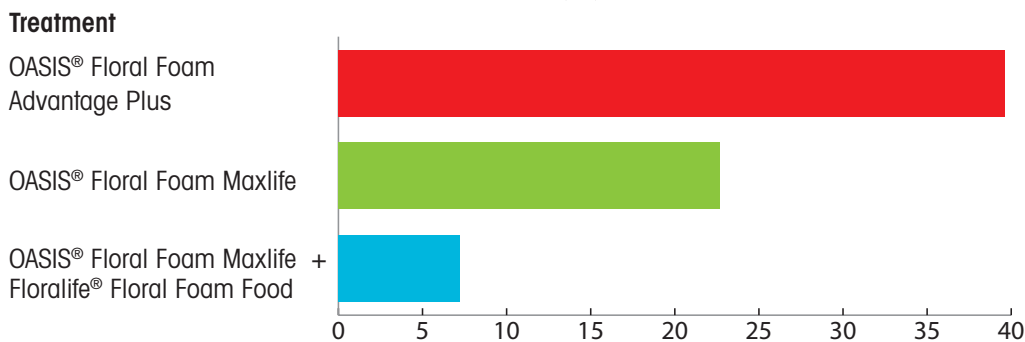


Day 3: OASIS® Floral Foam Maxlife in water with Facination (pink), Indian Red (red), Express (hot pink) Gerberas



Day 3: OASIS® Floral Foam Advantage Plus in water with Facination (pink), Indian Red (red), Express (hot pink) Gerberas

Water Loss by Flowers (%) Day 5



Floral Foam Water Loss from Surface Evaporation (ml)

Treatment	Day 1	Day 2	Day 3	Day 4	Day 5
OASIS® Floral Foam Advantage Plus	93.4	181.9	264.5	354.9	442.5
OASIS® Floral Foam Maxlife	73.2	160.3	239.7	331.9	420.6
OASIS® Floral Foam Maxlife + Floralife® Floral Foam Food	79.5	164.3	244.4	330.0	412.7

Water Uptake by Flowers (ml)

Treatment	Day 1	Day 2	Day 3	Day 4	Day 5
OASIS® Floral Foam Advantage Plus	14.3	38.8	52.0	68.9	82.6
OASIS® Floral Foam Maxlife	36.7	66.6	92.0	112.5	133.9
OASIS® Floral Foam Maxlife + Floralife® Floral Foam Food	29.3	63.6	90.1	124.0	158.9

Wilted Flowers (%)

Treatment	Day 2	Day 3	Day 4	Day 5
OASIS® Floral Foam Advantage Plus	36.1	52.8	69.4	86.1
OASIS® Floral Foam Maxlife	13.9	25.0	41.7	50.0
OASIS® Floral Foam Maxlife + Floralife® Floral Foam Food	0.0	2.8	22.2	30.7

Conclusion

It has been observed that the gerbera flower longevity in floral foam arrangements can be maximized by the use of OASIS® Floral Foam Maxlife saturated in Floralife® Floral Foam Food. OASIS® Floral Foam Maxlife indicated the best uptake of the gerberas arrangements; and when used in conjunction with Floralife® Floral Foam Food exhibited even better uptake in the gerbera arrangements.