*Abstract.* **Rooted cuttings of vegetatively propagated annuals from Proven Winners were planted on February 17, 2020. All cultivars were planted as 3 groups of 6 plants that were randomly placed in the garden. During the first week of each month, evaluations were conducted to measure and record plant height and width (size), flower number, and quality rating. Quality was rated on a scale of 1 to 5 with 5 = excellent and 1 = poor. A consumer preference survey was conducted using Typeform, a web-based platform used to create the survey.**

**Materials and Methods**

*Transplant production.* Rooted liners of cultivars were transplanted into 400 ml round pots filled with Pro-mix ‘BX’ (Premier Horticulture Inc., Red Hill PA. After transplanting, plants were placed in an open-sided greenhouse exposed to ambient air temperatures of 30°C day/21°C night. Plants were placed in the greenhouse in January 2020. Plants were watered daily and fertilized at planting with 5 g of Osmocote 15N-4.05P-9.96K (The Scotts Company, Marysville, Ohio).

*Field evaluation.* The garden has a Margate fine sand soil with 1.6% organic matter, a pH of 6.74 pH, a soluble salt level of 0.30 mS/cm, a nitrate (NO3-N) concentration of 9.00 mg/kg, an ammonium (NH4-N) concentration of 5.00 mg/kg, a phosphorus (P) concentration of 27.00 mg/kg, and a potassium (K) concentration of 3.7 mg/kg (samples collected from top 6 inches of soil). Samples were analyzed by the University of Florida’s soil testing laboratory. A 3-inch mulch layer was spread over the garden to help control weeds.

Plants were planted into the garden on February 17, 2020. Eighteen plants of each cultivar were planted in the garden as 3 randomly placed groups of 6 plants per cultivar (Table 1). For the first month, plants were watered three times a week for 30 minutes applying 30 ml of water. Irrigation frequency was then reduced to twice a week for 30 minutes for the remainder of the trial.

*Data collection.* Monthly mean air and soil temperature, solar radiation, and rainfall were collected using the Florida Automated Weather Network (FAWN) system (Table 2). During the first week of every month of the trial plant height, plant width, flower number, and quality were recorded for each individual plant in the garden (Table 3).

A consumer preference survey also was conducted in which participants were asked to check all the cultivars that they liked. This data was ranked using PROC RANK (SAS Systems, SAS Institute, Cary NC) with plants being chosen more often getting a higher rank than plants that were chosen less. The survey was conducted between March and May 2020 (Table 4). All data were then analyzed using analysis of variance (SAS Systems, SAS Institute, Cary, NC).

### Results and Discussion

The weather data collected shows average temperatures were slightly below average, humidity and Solar radiation were close to the average south Florida weather, and rainfall was above average every month except March in which it was very low.

All Cultivars planted in the 2020 garden did grow in size and flower number and peaked at 60 DAP. The highest quality plants were Colocasia Coffee Cups, Colocasia Heart of the Jungle, Helianthus SuncredibleYellow, Ipomoea Sweet Caroline Kiwi, and Ipomoea Sweet Caroline Medusa Green. The cultivars that ranked high from the consumer survey include Gaillardia Heat it Up Yellow, Gomphrena Truffula Pink, Helianthus Suncredible Yellow, Osteospermum Bright Lights Red, and Salvia Unplugged So Blue.

Due to social distancing this year, we did have to somewhat improvise how we collected data. We were given permission to come to the center in April to collect data, and to complete our annual survey, we used Typeform, a web-based platform in which we were able to upload the pictures and asked people to put a check by their favorites. The response of asking our Facebook followers to participate as well as sending e-mails to co-workers, associates, etc. This was such a success, that we are hoping to continue utilizing the platform in conjunction to having people visit the garden in the future.

Table 1. List of cultivars planted in the Fort Lauderdale Trial garden on February 17, 2020.

|  |  |  |
| --- | --- | --- |
| **Plant** | **Series** | **Variety** |
| Begonia | Surefire | Double Delight Blush Rose, Double Delight Primrose, Double Up Pink, Double Up Red, Double Up White, Red |
| Calibrachoa | Superbells | Coral Sun |
| Cleome |  | Senorita Rosalita |
| Colocasia |  | Coffee Cups, Heart of the Jungle |
| Cuphea |  | Vermillionaire |
| Euryops |  | High Noon |
| Evolvulus |  | Blue My Mind |
| Gaillardia | Heat it Up | Scarlet, Yellow |
| Gomphrena | Truffula | Pink |
| Helianthus | Suncredible | Yellow |
| Hypoestes | Hippo | Red, Imp. |
| Impatiens | Infinity | Blushing Crimson Imp., Light Purple Imp., Orange Imp. |
| Ipomoea | Sweet Caroline | Kiwi, Medusa Green |
| Lantana | Luscious  | Royale Cosmo, Royale Red Zone |
| Lobelia | Laguna | Sky Blue Imp. |
| Lobularia |  | Moonlight Knight, White Knight |
| Osteospermum | Bright Lights | Red |
| Pentas | Sunstar | Pink, Red, |
| Petunia | Supertunia | Mini Vista Indigo, Mini Vista Pink Star, Royal Velvet Imp., Vista Bubblegum |
| Ruellia | Machu | Morado |
| Salvia | Rockin’  | Blue Suede Shoes, Fuchsia |
| Salvia | Unplugged | So Blue |
| Sanvitalia |  | Sunbini Imp |
| Scaevola | Whirlwind | Blue, Starlight |

Table 2. Average mean air temperature, solar radiation, and rainfall measured at the University of

Florida Fort Lauderdale Research and Education Center during February and May 2020. The Florida Automated Weather Network (FAWN) collected the weather data

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Month/Year** | **Avg. Mean Air Temperature (C°)** | **Avg. Soil Temperature C°)** | **Avg. Humidity** | **Avg. Mean Solar Radiation (W·m-2)** | **Monthly Rainfall** **(inches)** | **Max. Monthly Wind (mph)** |
| **February 2020** | 21.48 | 22.29 | 79 | 176.75 | 2.71 | 28.4 |
| **March 2020** | 23.79 | 24.01 | 73 | 239.69 | 0.16 | 29 |
| **April 2020** | 26.21 | 26.64 | 75 | 239.39 | 3.12 | 31.58 |

Table 3. Plant ratings. Data was collected at initial planting, 30, 60, and 90 DAP

|  |  |  |  |
| --- | --- | --- | --- |
| Cultivar | Initial DAP | 30 DAP | 60 DAP |
| **Begonia** |   |   |   |
| Surefire Double Delight Blush Rose | 1 | 0 | 0 |
| Surefire Double Delight Primrose | 0 | 0 | 0 |
| Surefire Double Up Pink | 1.5 | 0 | 0 |
| Surefire Double Up Red | 4 | 2 | 1 |
| Red  | 5 | 5 | 3 |
| Surefire Double Up White | 5 | 4 | 3.5 |
| **Calibrachoa** |  |   |   |
| Superbells Coral Sun | 3.5 | 1 | 0 |
| **Cleome** |  |  |  |
| Senorita Rosalita  | 5 | 5 | 4.5 |
| **Colocasia** |  |  |  |
| Coffee Cups | 5 | 5 | 5 |
| Heart of the Jungle | 5 | 5 | 5 |
| **Cuphea** |  |  |  |
| Vermillionaire | 5 | 5 | 3 |
| **Euryops** |  |  |  |
| High Noon | 4 | 4.5 | 4 |
| **Evolvus**  |   |   |   |
| Blue My Mind | 3.5 | 2 | 1.5 |
| **Gaillardia** |   |   |   |
| Heat it Up Scarlet | 5 | 4 | 4 |
| Heat it Up Yellow |  5 |  5 | 4 |
| **Gomphrena** |  |  |  |
| Truffula Pink | 5 | 5 | 4 |
| **Helianthus** |  |  |  |
| Suncredible Yellow | 5 | 5 | 5 |
| **Hypoestes** |  |  |  |
| Hippo Red Imp. | 3 | 2 | 1.5 |
| **Impatiens** |  |  |  |
| Infinity Blushing Crimson Imp. | 3 | 3 | 2.5 |
| Infinity Light Purple Improved | 3.5 | 3 | 1 |
| Infinity Orange Imp. | 3 | 2 | 0 |
| **Ipomoea** |  |  |  |
| Sweet Caroline Kiwi | 5 | 5 | 5 |
| Sweet Caroline Medusa Green | 5 | 5 | 5 |
| **Lantana** |  |  |  |
| Luscious Royale Cosmo | 5 | 5 | 4 |
| Luscious Royal Red Zone | 5 | 3 | 3 |
| L**obelia** |  |  |  |
| Laguna Sky Blu Imp. | 0 | 0 | 0 |
| **Lobularia** |  |  |  |
| Moonlight Knight | 2.5 | 1 | 0 |
| White Knight | 2.0 | 1 | 0 |
| **Osteospermum** |  |  |  |
| Bright Lights Red | 5 | 5 | 4 |
| **Pentas** |  |  |  |
| Sunstar Pink | 5 | 3 | 3 |
| Sunstar Red | 5 | 3 | 2.5 |
| **Petunia** |  |  |  |
| Supertunia Mini Vista Indigo | 3 | 2 | 0 |
| Supertunia Mini Vista Pink Star | 3 | 2 | 0.5 |
| Supertunia Royal Velvet Imp. | 3 | 2 | 2 |
| Supertunia Vista Bubblegum | 3 | 2 | 1 |
| **Ruellia** |  |  |  |
| Machu Morado | 4 | 3 | 3 |
| **Salvia** |  |  |  |
| Rockin’ Blue Suede Shoes  | 5 | 5 | 4.5 |
| Rockin’ Fuchsia | 5 | 5 | 4 |
| Unplugged So Blue | 5 | 5 | 5 |
| **Sanvitalia** |  |  |  |
| Sunbini | 1.5 | 0 | 0 |
| Scaevola |  |  |  |
| Whirlwind Blue | 3.5 | 3 | 0 |
| Whirlwind Starlight | 3.5 | 3 | 2 |
| **Solenostemon** |  |  |  |
| ColorBlaze Royale Apple Brandy | 5 | 5 | 5 |
| ColorBlaze Royale Cherry Brandy | 5 | 5 | 5 |
| ColorBlaze Royale Pineapple Brandy | 5 | 5 | 5 |

**Table 4. Consumer preference surveys were conducted with “Typeform” ,**

**a web-based survey platform.**

|  |  |
| --- | --- |
| Cultivar | Survey (%) |
| **Begonia** |   |
| Surefire Double Delight Blush Rose | 0 |
| Surefire Double Delight Primrose |  0 |
| Surefire Double Up Pink |  0 |
| Surefire Double Up Red | 30.8 |
| Red  | 24.8  |
| Surefire Double Up White | 17.3 |
| **Calibrachoa** |   |
| Superbells Coral Sun |  0 |
| **Cleome** |   |
| Senorita Rosalita  | 34.6  |
| **Colocasia** |  |
| Coffee Cups |  22.6 |
| Heart of the Jungle | 14.3 |
| **Cuphea** |   |
| Vermillionaire | 45.9  |
| **Euryops** |   |
| High Noon |  35.3 |
| **Evolvus**  |  |
| Blue My Mind | 0  |
| **Gaillardia** |   |
| Heat it Up Scarlet | 42.9 |
| Heat it Up Yellow | 60.2  |
| **Gomphrena** |   |
| Truffula Pink | 57.9 |
| **Helianthus** |  |
| Suncredible Yellow | 55.6 |
| **Hypoestes** |  |
| Hippo Red Imp. | 0 |
| **Impatiens** |  |
| Infinity Blushing Crimson Imp. | 34.6 |
| Infinity Light Purple Improved | 0 |
| Infinity Orange Imp. | 0 |
| **Ipomoea** |  |
| Sweet Caroline Kiwi | 6.0 |
| Sweet Caroline Medusa Green | 7.5 |
| **Lantana** |  |
| Luscious Royale Cosmo | 42.1 |
| Luscious Royal Red Zone | 29.3 |
| L**obelia** |  |
| Laguna Sky Blu Imp. | 0 |
| **Lobularia** |  |
| Moonlight Knight | 0 |
| White Knight | 0 |
| **Osteospermum** |  |
| Bright Lights Red | 60.2 |
|  |  |
|  |  |
| **Pentas** |  |
| Sunstar Pink | 42.1 |
| Sunstar Red | 25.6 |
| **Petunia** |  |
| Supertunia Mini Vista Pink Star  | 0 |
| Supertunia Mini Vista Indigo | 0 |
| Supertunia Royal Velvet Imp. | 36.1 |
| Supertunia Vista Bubblegum | 0 |
| **Ruellia** |  |
| Machu Morado | 0 |
| **Salvia** |  |
| Rockin’ Blue Suede Shoes  | 41.4 |
| Rockin’ Fuchsia | 31.6 |
| Unplugged So Blue | 60.2 |
| **Sanvitalia** |  |
| Sunbini | 0 |
| Scaevola |  |
| Whirlwind Blue |  |
| Whirlwind Starlight | 42.1 |
| **Solenostemon** |  |
| ColorBlaze Royale Apple Brandy | 42.9 |
| ColorBlaze Royale Cherry Brandy | 44.4 |
| ColorBlaze Royale Pineapple Brandy | 20.3 |

Results are based on the percentage of respondents who chose that cultivar as one that they liked. A total of 132 surveys were completed.