

2014 Home Demonstration Garden

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Introduction

The 2014 Home Demonstration Gardens were divided into four quadrants, each with a different theme. Impatiens and Zinnia varieties were showcased in the first quadrant. The New Cultivar Garden displayed a variety of garden plants new to the public, and the Purple Garden was dominated with purple vegetables. The final quadrant was used to create a raspberry and blackberry plot at each farm as a feature of the 2015 garden.

Materials and Methods

Seeds of some vegetable and annual flowers were sown in late February and March 2014 at the Horticulture greenhouses, Ames, Iowa. Approximately one month later, seedlings were transplanted into cell packs. Plants were distributed to each research farm in early May for planting in late May or early June at each garden. Unrooted cuttings of Sunpatiens were grown in the greenhouse after their March arrival on campus. A few species (beans, carrots, beets, turnips, potatoes, and squash) were seeded or started directly in the garden plots. Berries were planted directly in the gardens as rooted canes.

Transplants were hardened or acclimated to growing conditions at each farm for approximately one week prior to planting. The ISU Research Farms participating in the 2014 Home Demonstration Garden trial and display included: Armstrong (Lewis), Horticulture Research Station (Ames), Muscatine Island (Fruitland), Northern (Kanawha), Northeast (Nashua), and the Lyon County Fairgrounds

(Rock Rapids, IA). Transplants were watered at planting and then as needed throughout the growing season. The amount of water and fertilizer applied at each garden varied considerably due to soil and weather conditions.

Results and Discussion

Due to heavy rain events, which caused flooding shortly after planting, the Lyon County Fairgrounds garden was a loss and, therefore, not included in these results.

Purple Vegetable Garden. Vegetables chosen for this section of the garden had either purple fruit or purple foliage. Three varieties of Basil were planted (Amethyst Improved, Purple Ruffles, and Ruby Red) all of which performed well in all of the sites. All root crops performed well, including Bull's Blood Beets, American Purple Top Rutabaga, Purple Top White Turnip, and three varieties of carrots (Deep Purple, Red Dragon, and Purple Haze). There was some observed variability in size of root crops between the sites with the Northeast and Northern sites proving to have the largest produce. Carrots also varied due to soil conditions and higher levels of nitrogen fertility, which caused an increase in forking at some sites.

Four cultivars of purple beans were displayed in the gardens (Amethyst, Royal Burgundy, Royalty Purple Pod, and Velour). The beans seemed to perform equally between cultivars and quite well across the sites. Cabbage cultivars included Deacon, Ruby Perfection, and Super Red 115. At several gardens, rabbits ate the cabbage plants. However, the plants performed well at sites where they were not eaten. Graffiti and Purple of Sicily cauliflower showed beautiful purple heads at the Northeast field day.

Three vastly differing cultivars of eggplant were used in the garden. Globe shaped Barbarella, a teardrop shaped fruit called Classic, and a smaller thin Purple Fingers. Several sites showed good fruit production on all cultivars with the exception of plants at the Horticulture Research Station where plants were not flowering by the date of the demonstration field day. Purple bell peppers performed evenly among the cultivars, again, where the plants were large enough to bear fruit. Cultivars selected included Islander, Merlot, and Purple Beauty. Swiss Chard cultivar Ruby Red proved to excel in gardens where it escaped rabbit pressure.

Tomato varieties Cherokee Purple, Indigo Rose, and Pruden's Purple had large, clean fruiting vines and a good fruit set at the later field days, but vines showed evidence of disease or poor fruit production at the Horticulture Research Station and Armstrong Farm. This is being attributed to early statewide weather patterns conducive for disease.

Finally, the best public response came from the purple potato selections. Cultivars included Adirondack Blue, All Blue, Magic Molly, Purple Majesty, Purple Peruvian Fingerling, and Purple Viking. Attendees enjoyed viewing differences between cultivars upon cutting each one open. This crop was a bit early to be harvested, as the plants had not fully developed by the later field days. All cultivars produced edible tubers with Purple Viking and Adirondack Blue generally producing the largest tubers over all sites.

New Cultivar Garden. Selections from this section of the garden were chosen to display

recent introductions of both flowers and vegetables. As you might expect, gardens planted earlier in the season showed plants that were more developed. This was apparent in varieties of sweet pepper, green beans, tomato, squash, and cucumber. Pick-a-bushel cucumber was noted by several of the farms as being a great season-long performer with good fruit production.

Flowers included an exceptional display from the marigold Garland Orange. Selections of French marigold and celosia also performed admirably. Varietal differences between petunia cultivars were seen with African Sunset outperforming Salmon Morn at all sites. Similarly, cultivar differences were apparent at all sites of the coleus selections with Mighty Mosaic outperforming Chocolate Covered Cherry. A new series of zinnia, Pop Art, showed interesting flowers but also showed high susceptibility to foliar disease at all sites.

Zinnia and Impatiens. Differences were seen between the seeded variety of New Guinea Impatiens (Divine Scarlet, Florific Red) and the series grown from cuttings (Celebration) (Table 1). The seeded varieties performed poorly at all sites with many of them not surviving. Several Zinnia cultivars held clean foliage with abundant flowers, however disease was apparent on others (Table 2).

Acknowledgements

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Table 1. Observations of several cultivars of New Guinea Impatiens grown at several ISU Research and Demonstration Farms across Iowa. (Scale: good, fair, or poor)

Impatiens Cultivar	Horticulture		Muscatine		
	Armstrong	Research Station	Island	Northern	Northeast
Carmine Red	Good	Good	Good	Good	Good
Corona	Good	Good	Good	Good	Good
Compact Magenta	Good	Good	Good	Good	Good
Compact Orange	Good	Good	Good	Good	Good
Vigorous Magenta	Good	Good	Good	Good	Good
Vigorous Orange	Good	Good	Good	Good	Good
Divine Scarlet	Poor	Poor	Poor	Poor	Fair
Florific Red	Poor	Poor	Poor	Poor	Fair
Celebration Mix	Fair	Fair	Fair	Fair	Fair
Rose Balsam	Good	Good	Good	Good	Good

Table 2. Observations of several cultivars of compact zinnias grown at several ISU Research and Demonstration Farms across Iowa. (Scale: good, fair, or poor)

Cultivar	Horticulture		Muscatine		
	Armstrong	Research Station	Island	Northern	Northeast
Magellan Cherry	Good	Good	Good	Good	Good
Magellan Coral	Good	Good	Good	Good	Good
Magellan Orange	Good	Good	Good	Good	Good
Magellan Scarlet	Good	Good	Good	Good	Good
Old Mexico	Good	Good	Good	Good	Good
Persian Carpet	Good	Good	Good	Good	Good
Profusion Apricot	Good	Good	Good	Good	Good
Prof. Coral Pink	Good	Good	Good	Good	Good
Prof. Double Deep Salmon	Good	Good	Good	Good	Good
Prof. Double Hot Cherry	Good	Good	Good	Good	Good
Red Spider	Good	Good	Good	Fair	Good
Swizzle Cherry and Ivory	Poor	Poor	Poor	Poor	Fair
Swizzle Scarlet and Yellow	Poor	Poor	Poor	Poor	Fair
Z. angustifolia Crystal White	Good	Good	Good	Good	Good
Z. ang. Crystal Orange	Good	Good	Good	Good	Good
Zahara Cherry	Good	Good	Good	Good	Good
Zahara Double Cherry	Good	Good	Good	Good	Good
Zahara Double Fire	Good	Good	Good	Good	Good
Zahara Sunburst	Good	Good	Good	Good	Good
Zowie Yellow Flame	Fair	Fair	Fair	Fair	Good