Comparison of Dahlia Cultivars in the Northeast

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Background

- Approximately 70% of cut flower growers in the US grow at least some dahlias
- Hardy to USDA zone 7
- Flower in the fall
- Excellent specialty cut flower for local production
Background

• Dahlias:
  – Vase life = 4-5 days
  – Mixed results using
    • Hydrating solutions
      – Germicide
      – Acidify
    • Holding solutions
      – Carbohydrates
      – Acidify
      – Germicide
Our Goals

• Determine which cultivars are most suitable for the Northeast

• Grow a variety of cultivars in Orono, Maine

• Test two commercial holding solutions:
  – Floralife 200
  – Chrysal Professional 2
Grower Recommended Cultivars

• Sixty-four cultivars recommended (!)

• Most popular types:
  – Size BB/Small (4”-6”) or M/Micro (2”-4”)
  – Informal or Formal Decorative
  – Light blend, dark blend, dark red

• This work continues!
Planting and Growing

- 14 cultivars

- Littlefield Gardens:
  - Zone 5b
  - Loam (47% sand, 41% silt, 12% clay)
  - pH (unadjusted) = 6.1
  - 1 T of 5-10-10 at plant and after pinching
  - 5 lb/100 ft² dolomitic lime
  - Bark mulch
Planting and Growing

- 5 tubers of each cultivar planted
  - 60 F (May 13)
  - 4”-6” deep
  - 2’ in row spacing
  - Corralled for staking
  - Drip irrigation as needed
  - Pinched (July 13)
  - Flowers longer than 12” harvested
  - First frost = October 7
How we compared cultivars

- Number of flowers harvested
- Days to first flower
- Stem length
- Stem diameter
- Scouting for insect and disease problems
- Tuber number
Blizzard

- Formal Decorative, Miniature, White
- Flower Number = 9
- Stem length = 16”
- Days from planting to flower: 103

Longest stems out of any cultivar we grew!

Very popular!
Burlesca

- PomPon, Miniature, Pink
- Flower Number = 27
- Stem length = 14”
- Days from planting to flower: 91

We suggest classifying as miniature based on our measurements
Café au Lait

- Informal Decorative, Medium, Pink
- Flower Number = 3
- Stem length = 14”
- Days from planting to flower: 124

Very popular!

Among the last to flower; would benefit from cold protection
Café au Lait Rose

- Informal Decorative, Medium, Dark Pink
- Flower Number = 13
- Stem length = 15”
- Days from planting to flower: 100

Earlier and more floriferous than Café au Lait

We suggest classifying as medium based on our measurements
Clearview Daniel

- Ball, Miniature, Yellow
- Flower Number = 11
- Stem length = 14”
- Days from planting to flower: 104

We suggest classifying as miniature based on our measurements
Cornel

- Ball, Miniature, Dark Red
- Flower Number = 17
- Stem length = 13.5”
- Days from planting to flower: 99

We suggest classifying as miniature based on our measurements
Cornel Bronze

- Ball, Miniature, Bronze
- Flower Number = 18
- Stem length = 14”
- Days from planting to flower: 88

Early!

We suggest classifying as miniature based on our measurements
Ivanetti

- Ball, Miniature, Purple
- Flower Number = 18
- Stem length = 14”
- Days from planting to flower: 101

Very similar to Cornel

We suggest classifying as miniature based on our measurements
Lollipop

- Formal Decorative, Miniature, Light Blend
- Flower Number = 15
- Stem length = 12.5”
- Days from planting to flower: 103

Some white petals

Short stems
Neon Splendor

- Informal Decorative, Medium, Flame Blend

- Flower Number = 12

- Stem length = 14”

- Days from planting to flower: 101

Solid performer!
Rock Run Ashley

- Formal Decorative, Miniature, Pink
- Flower Number = 10
- Stem length = 13”
- Days from planting to flower: 87

Earliest to form flowers
Sunspot

• Ball, Miniature, Dark Blend

• Flower Number = 3

• Stem length = 14”

• Days from planting to flower: 115

Low number of flowers produced

Later bloom date
Tanjoh

- Cactus, Small, BiColor
- Flower Number = 14
- Stem length = 13.5"
- Days from planting to flower: 97

Vase life seems short
Tempest

- Formal Decorative, Small, Dark Pink
- Flower Number = 2
- Stem length = 16”
- Days from planting to flower: 122

Very long stems

Among the last to flower; would benefit from cold protection
Pest and Disease Issues

- During the season, we observed the following issues:
  - Deer browsing
  - Minimal Japanese Beetle
  - Dahlia Mosaic Virus (Junkyard Dog)

Image compliments of Anette Phibbs
Post-Harvest Work

- 3 cultivars:
  - Cornel
  - Ivanetti
  - Burlesca

- 3 Solutions:
  - Water (pH 3.1-4.6)
  - Floralife 200 (2 tsp/Liter)
  - Chrysal Professional 2 (2 tsp/Liter)
Post-Harvest Work

- Ivanetti and Burlesca:
  - No benefit from either solution
  - Vase life = 6-7 days
Cornel Vase Life

Water

Chrysal Professional 2

Floralife 200

3 days 8 days 7 days
Take away messages

• Stem length:
  – Blizzard and Tempest have the longest stems

• Flower timing
  – Rock Run Ashley flowered earliest
  – Café au Lait and Tempest flowered last
  – Both of these cultivars would benefit from winter protection
Take away messages

- Holding Solutions:
  - Cultivars vary
  - Cornel benefits from either Floralife 200 or Chrysal Professional 2
  - Vase life in water among cultivars may vary as well
Next Steps

• Interviewing more growers!

• Planting 20 different cultivars next spring

• Compare as many of those cultivars as possible for vase life in water
Thank you!

• Isabella Oliveira
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