



Outdoor Dahlia Production for Cut Flowers

Stephanie Burnett

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



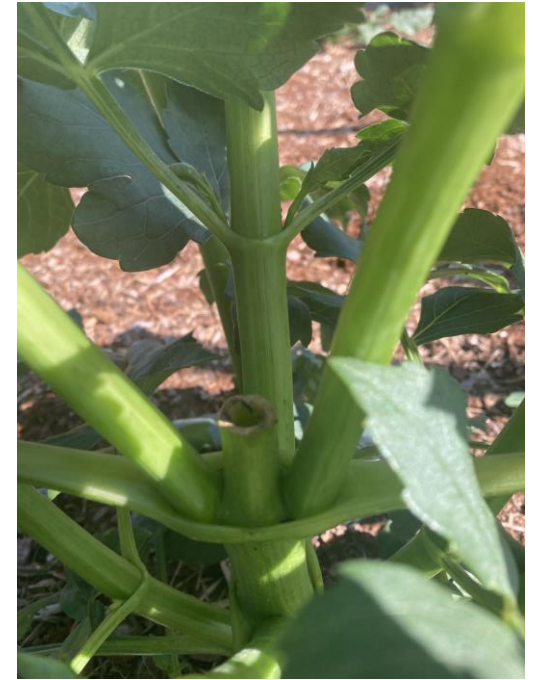
Planting and Growing

- Dahlias prefer:
 - 6 to 8 hours of direct sun
 - Drainage (no clay soil)
 - No watering tubers before emergence
 - Consistent irrigation after emergence
- Planting:
 - Tubers
 - Cuttings
 - 60 F soil temp
 - No frost
 - 4"- 6" deep
 - Space plants 2' apart



Pinching

- Pinching encourages branching (more flowers!)
 - 8" tall
 - Remove everything above 3rd node
- Flowers will be about 1-2 weeks later



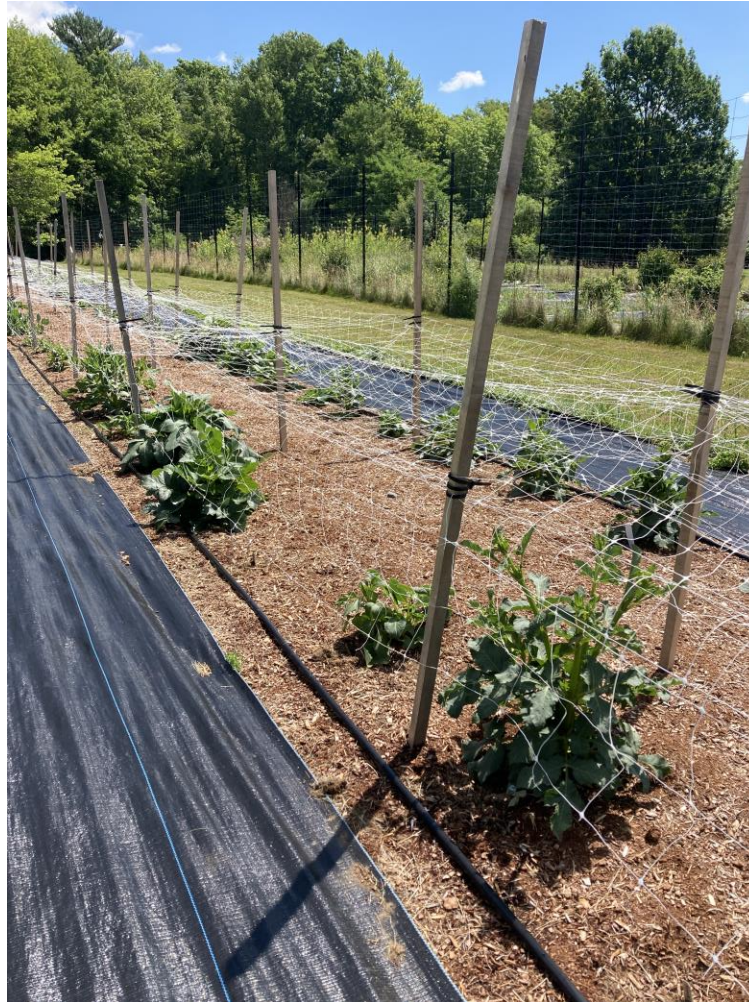
Planting and Growing

- Fertility
 - Soil test with local lab
 - Too much nitrogen = Excessive growth, fewer flowers
 - 5-10-10
 - Half at planting
 - Half during rapid growth
- pH 6.0 to 6.5

Staking



Staking



Staking



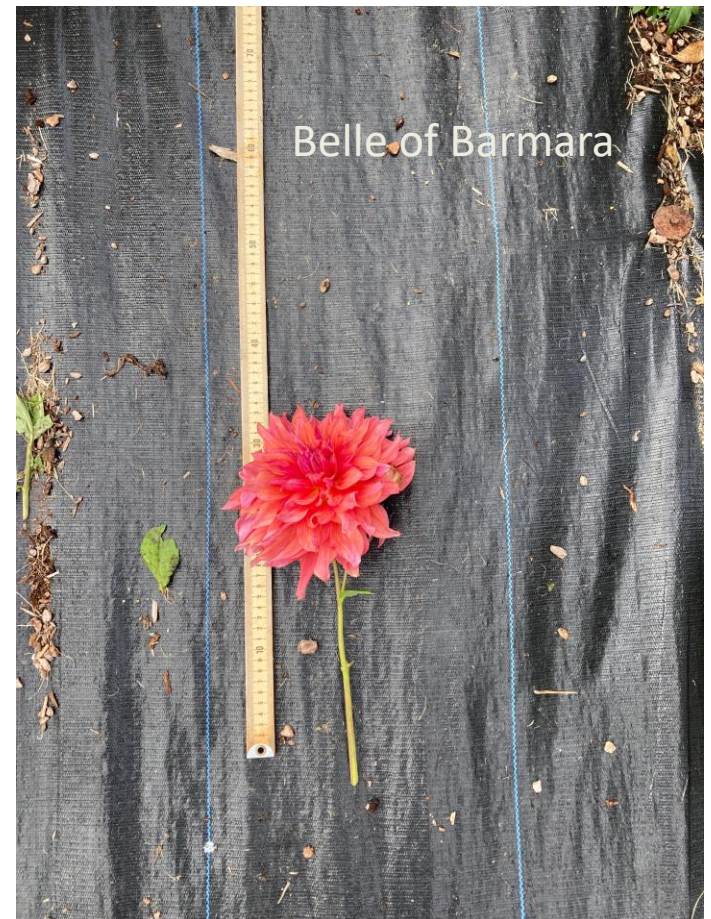
Cultivar Forms

- Formal Decorative



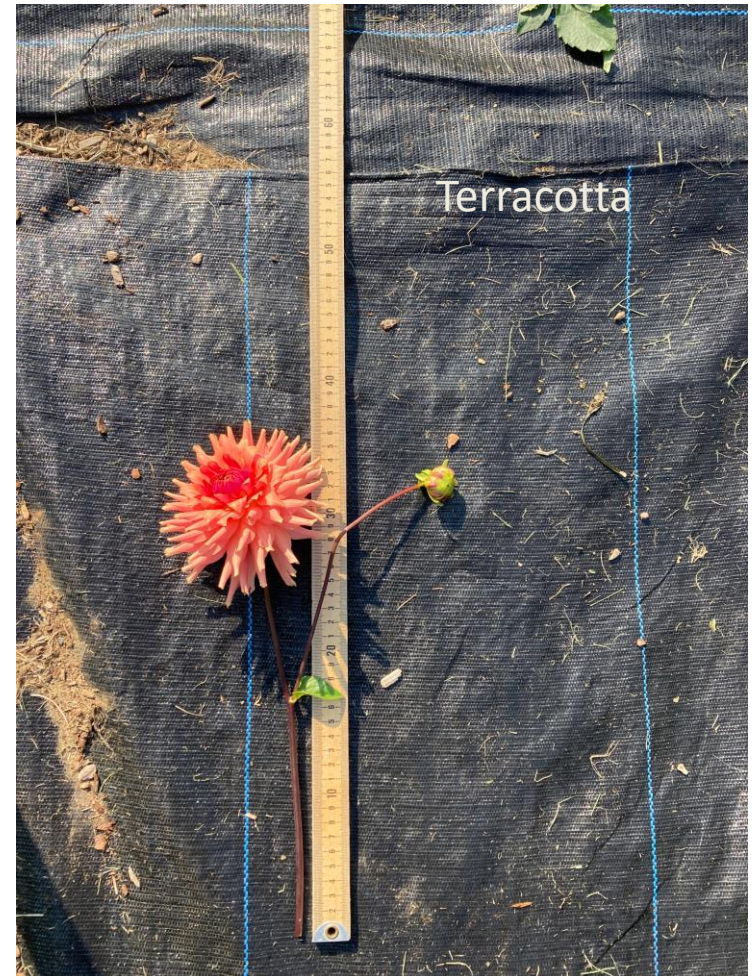
Cultivar Forms

- Formal Decorative
- Informal Decorative



Cultivar Forms

- Formal Decorative
- Informal Decorative
- Cactus



Cultivar Forms

- Formal Decorative
- Informal Decorative
- Cactus
- Ball



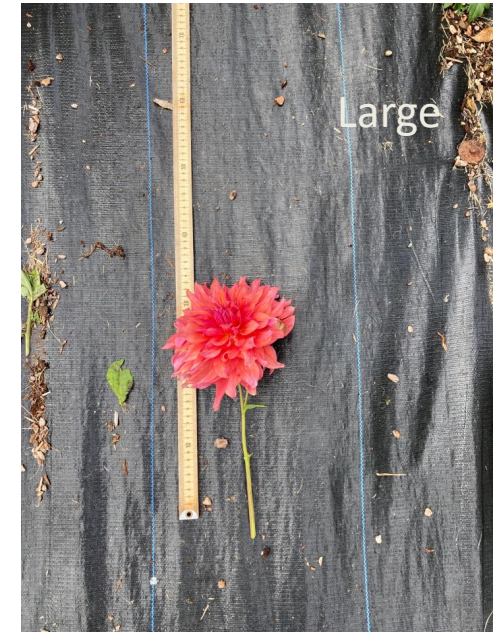
Cultivar Forms

- Formal Decorative
- Informal Decorative
- Cactus
- Ball
- Single (poor vase life)



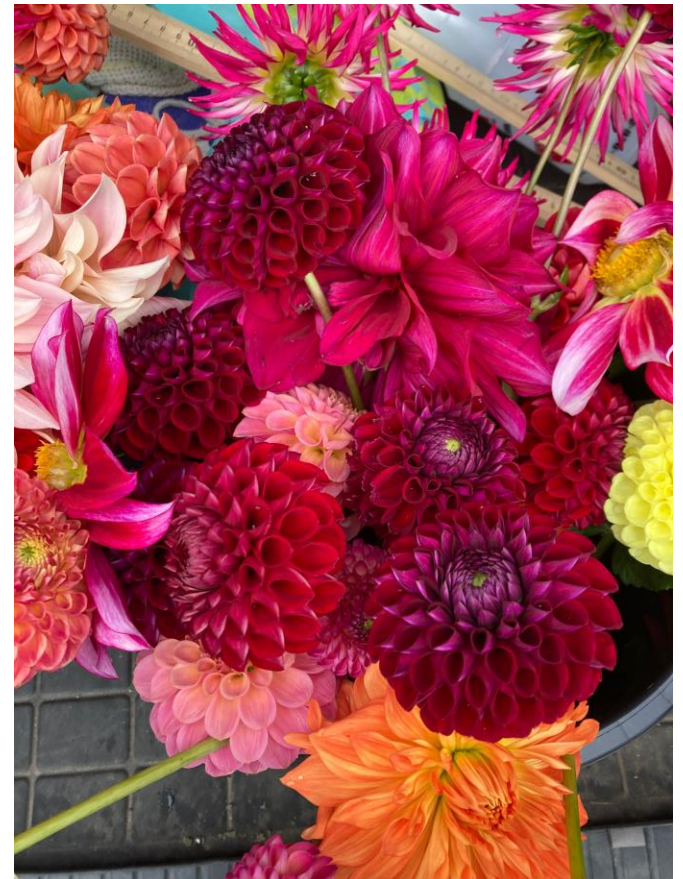
Cultivar Flower Size

- Giant – more than 10”
- Large – 8”-10”
- Medium – 6”-8”
- Small – 4”-6”
- Miniature – 2”-4”
- Micro – up to 2”



Grower Recommended Cultivars

- Over Sixty-four cultivars recommended (!)
- Most popular types:
 - Small (4"-6") or Micro (2"-4")
 - Informal or Formal Decorative
 - Light blend, dark blend, dark red
- We are in our second year of evaluating dahlias



Planting and Growing

- 14 cultivars (2022)
- 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, 2022

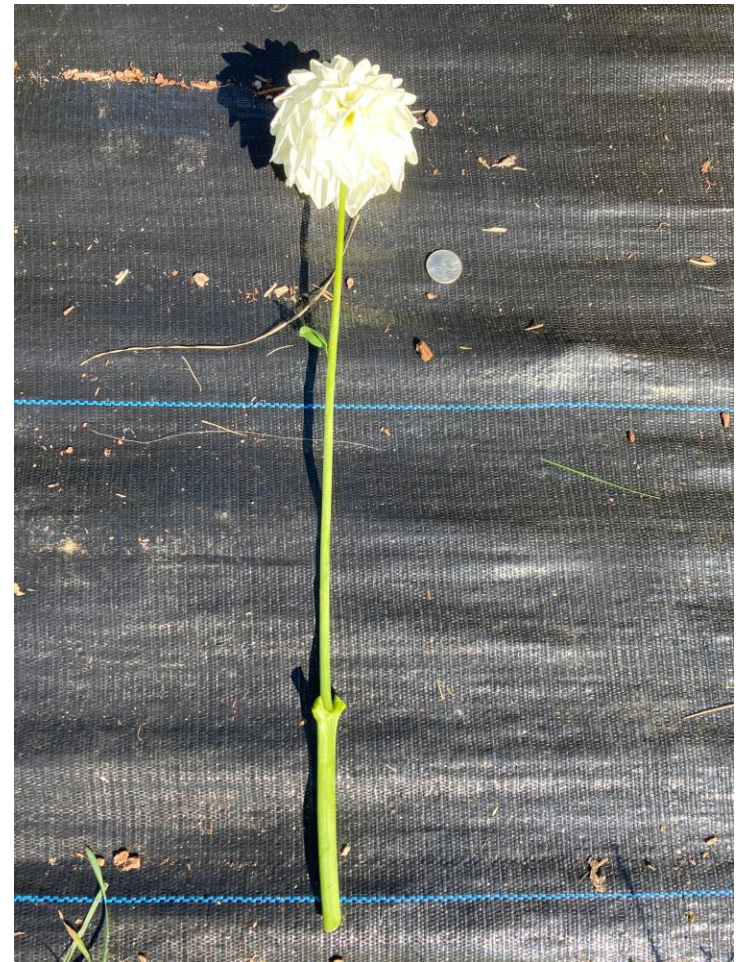


Blizzard

- 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

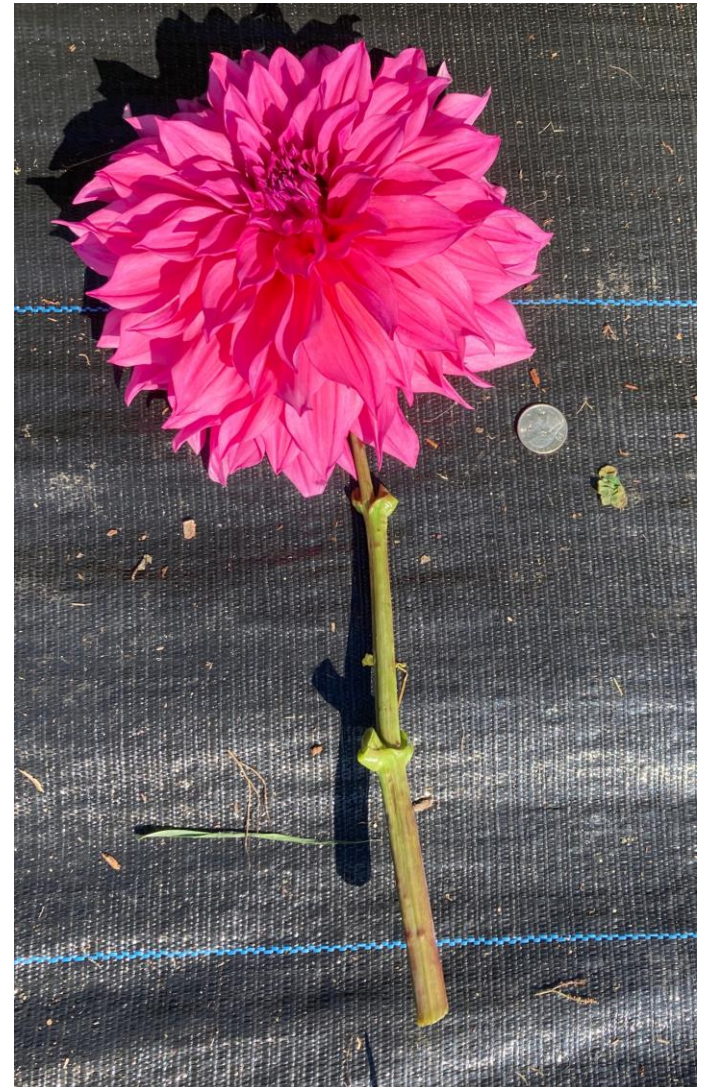


Café au Lait Rose

- 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

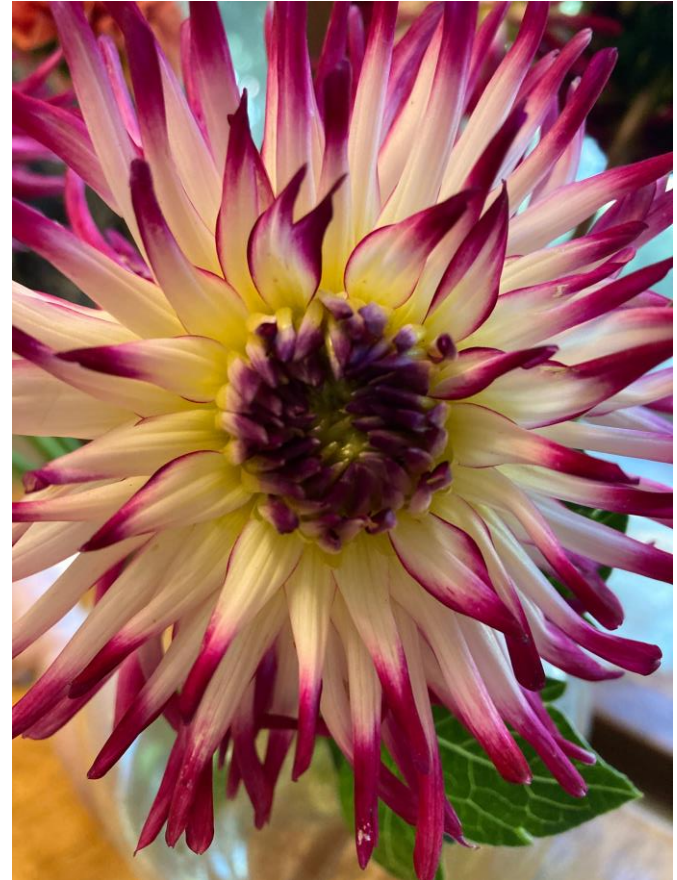
Later bloom date



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



Common 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

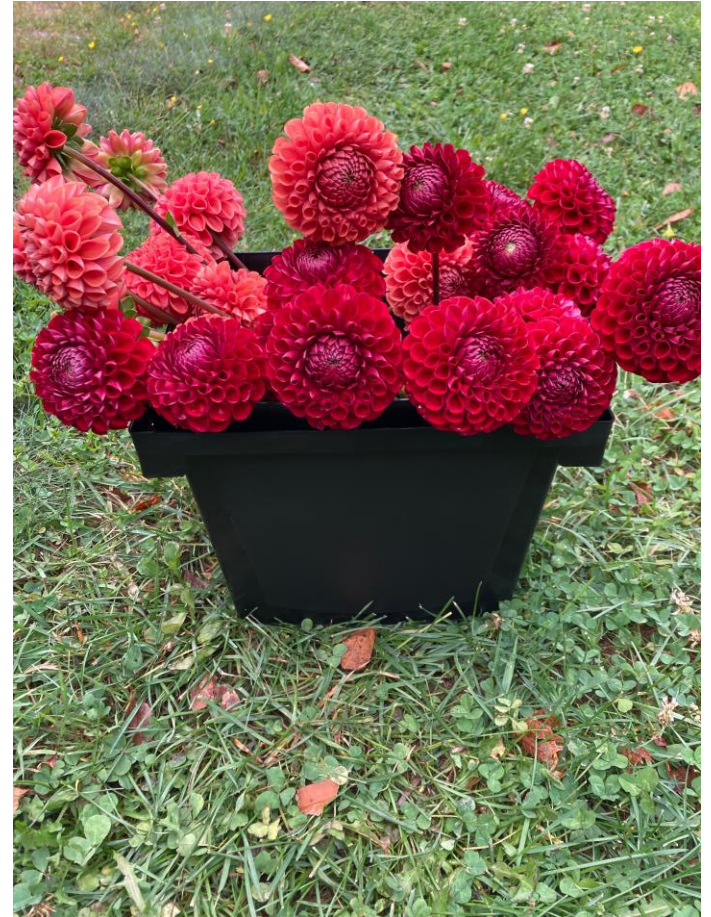


Winter Protection

- Low Tunnel
 - Attach 2' metal conduit for extra height
- High Tunnel
 - Priority for high tunnel space
 - 4 d earlier flowers
 - No impact on yield
 - Extend season to November in Coastal Maine

Harvest considerations

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



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)

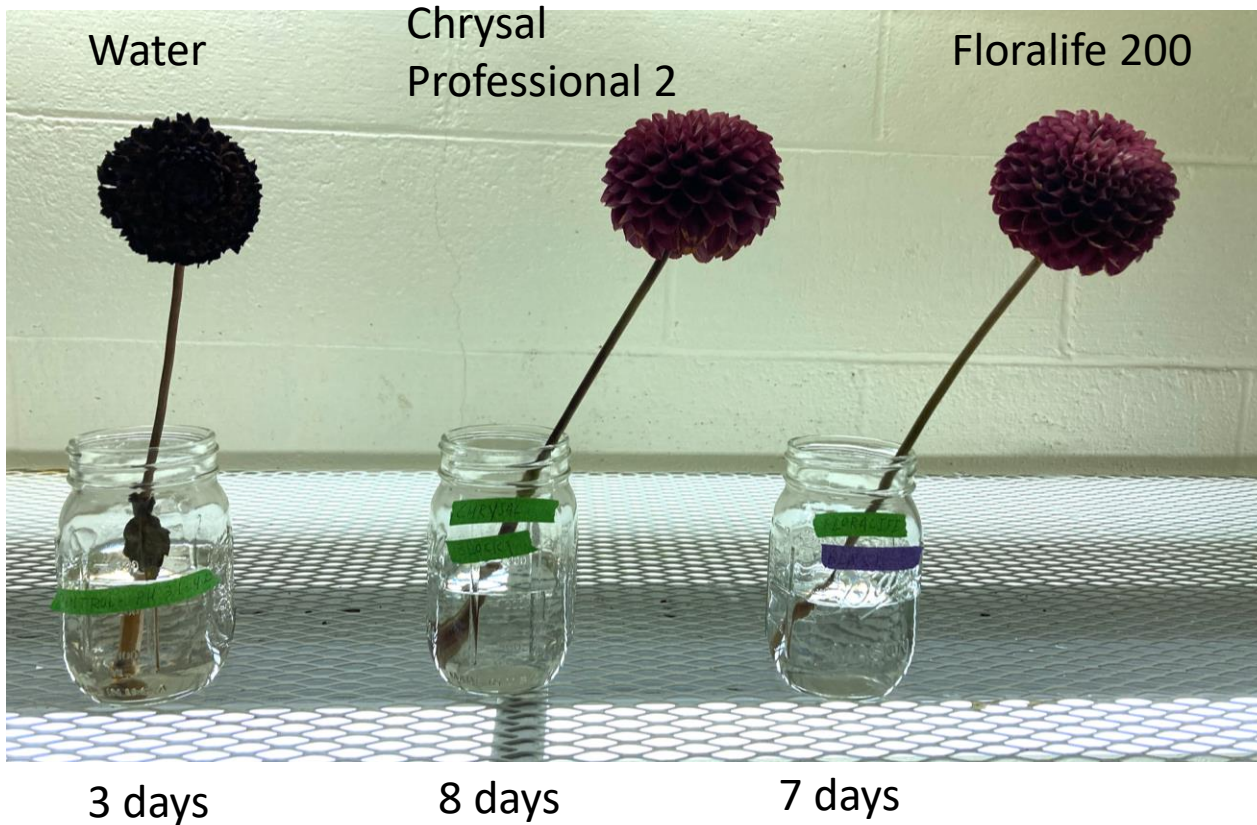


Post-Harvest Work

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



Cornel Vase Life

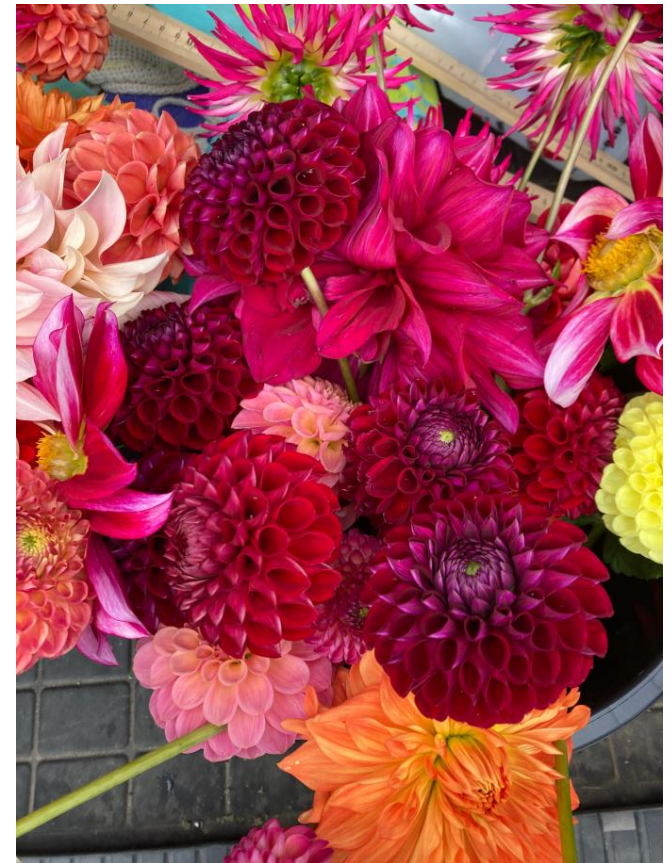


Vase Life of Fourteen Cultivars



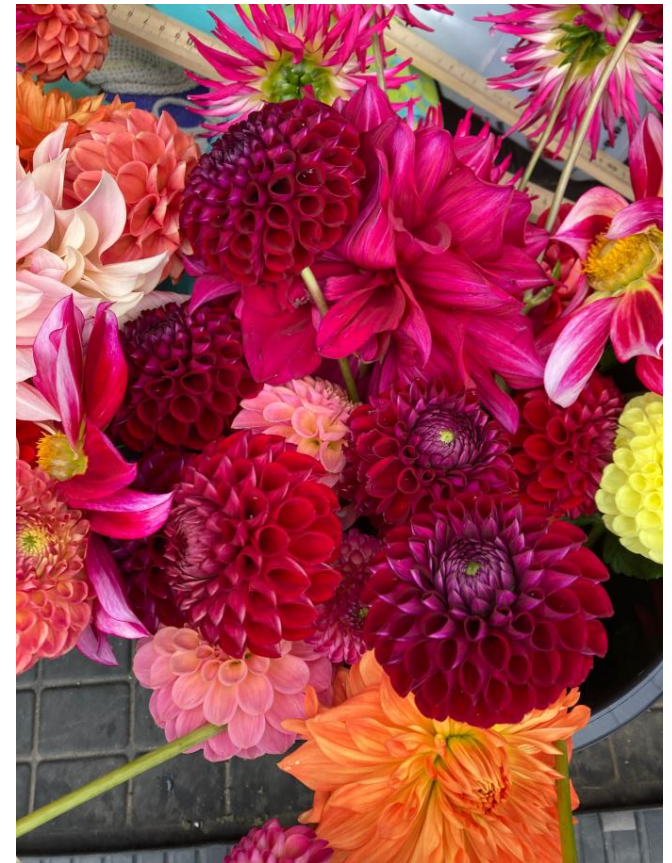
Take away messages

- 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
 - Cornell benefits from either Floralife 200 or Chrysal Professional 2
 - Vase life in water among cultivars may vary as well



Thank you!

- Bryan Peterson
- Isabella Oliveira
- Taylor Bowers
- Madison Jones
- Joseph Cannon
- Stanley Carter
- Kaitlyn Lord
- Jessica Hutchinson
- Jacob Schwab
- Maine Agriculture and Forestry
Experiment Station
- Maine cut flower growers!

*Association
of*
Specialty
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