

Ornamental Sunflower for the Fresh Cut-Flower Market—*Initial Results*



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National Sunflower Association, 2025

What the public thinks about for
sunflower.



Photography!—Early morning sun.

Gives exceptionally vivid colors vs. bleached-out mid-day sun.



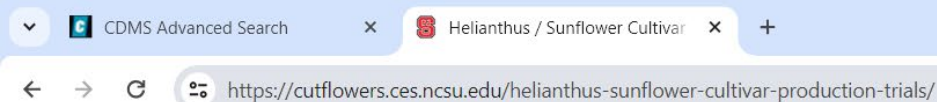
Seed Spirals!

- ⊙ Sunflower seeds form two spirals (*parastichies*), clockwise from the center, the other counter-clockwise.
- ⊙ “**Fibonacci**” mathematical sequence (published in Latin in 1202).
- ⊙ Packing of seeds at 137.5° angle maximizes space.



Online Sunflower Garden Guides

<https://cutflowers.ces.ncsu.edu/helianthus-sunflower-cultivar-production-trials/>



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A Brief History of Specialty Cut Flower Production Where to Start – Information for Beginning Cut Flower Growers Support

[Postharvest Trials](#)

Postharvest Information Trial Results by Year Trial Results by Cultivar

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My first encounter with ornamental sunflowers

- ◎ Garza Co., Texas, 2000 & 2001
- ◎ For two years a local farm family grew for the local fresh cut flower market...
- ◎ **They quit.** Why?

Many Blooms...

- ◎ For non-single stem ornamentals can you “pinch” secondary buds in the leaf/stem crotch or under the head = **single bud?**



Hokum Rock Blueberry Farm

Cape Cod, Massachusetts

Previous



Hokum Rock Blueberry Farm



- ⦿ 2.0 acres under the net
- ⦿ Bushes X pints X price X acres?--\$150,000 from two acres.
- ⦿ And I supplied some of the labor (U-Pick operation)
- ⦿ Dryland farmers in West Texas often struggle to get \$150,000 revenue on 500(!) acres.

Expanded Effort in Ornamental Sunflower

- ◉ Texas Dept. of Agriculture Specialty Crop Block Grant program / USDA



- ◉ “Improving and Expanding Ornamental Sunflower Management for the Texas Cut Flower Market”
- ◉ **\$20,000 per acre revenue?**

Ornamental Bush Type Sunflowers

Two common
varieties in Texas
A&M PGR research:

‘Sunfinity’

‘Suncredible’

PGR testing to force
compact growth for
containers & more
blooms.



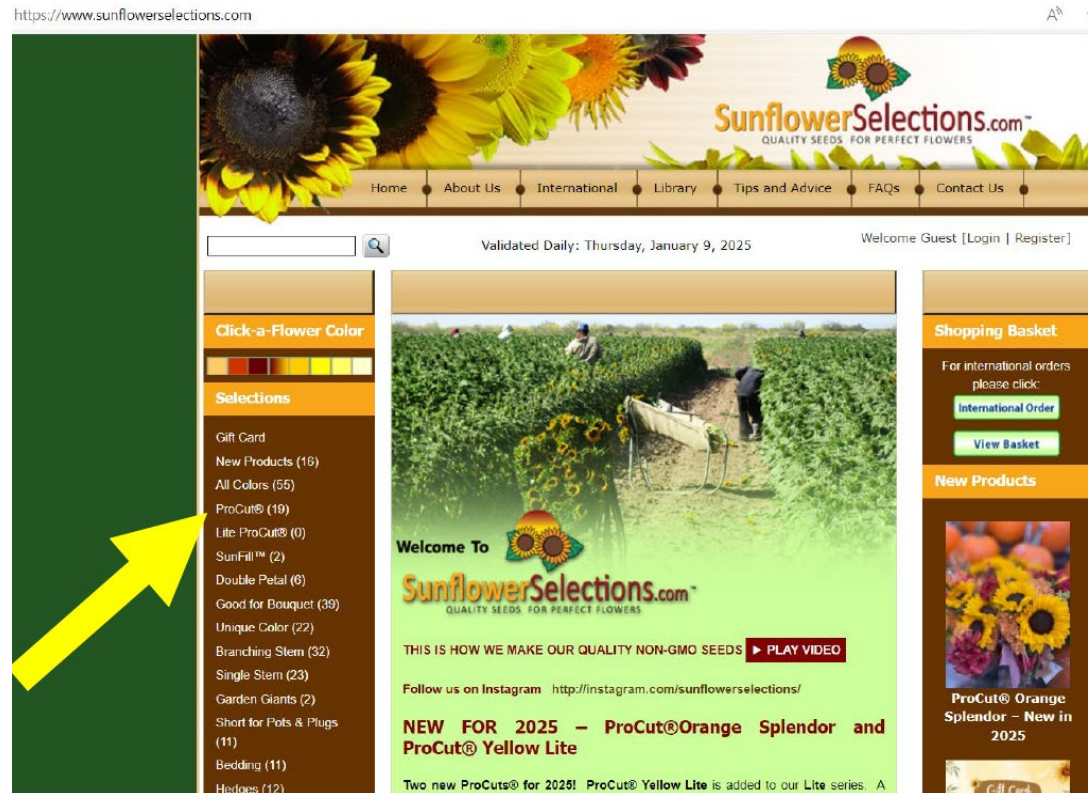
Expanded Effort in Ornamental Sunflower

- ◎ **Initial goal:** test PGRs to suppress branching and secondary buds (in the leaf axil or underneath the head)
- ◎ **Infeasible**—
 - ◎ PGRS would foul primary bud/bloom
 - ◎ Too much work for growers to apply (and when?)

Hobby → Passion!

- ◎ Dr. Tom Heaton, Woodlands, Calif.
- ◎ Ornamental sunflowers bred for single stem (also pollenless): **ProCut** series
- ◎ <http://www.sunflowerselections.com>

~60 varieties, 19 are **ProCut** single stem.



Expanded Effort in Ornamental Sunflower

- ◎ **Shift in Objectives...**

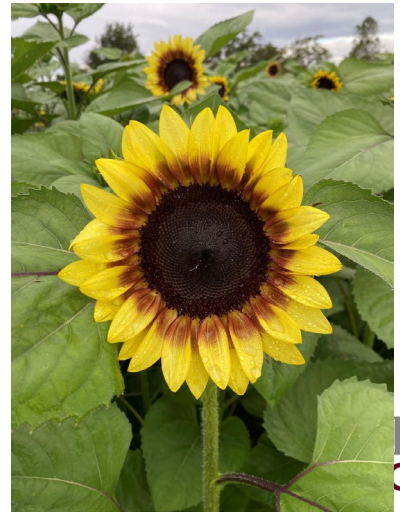
- ◎ Commercial sunflower growers have one or the other or both:

- ◎ branching sunflowers (pick individual stem or a bunch)

- ◎ larger flowers on single stem

Expanded Effort in Ornamental Sunflower

- ◎ Chose 12 ProCut Sunflower Selections single-stem varieties color array + 4 branching.
- ◎ Test true single-stem
- ◎ Four ProCut lines tested for response to row spacing & seeding density → **Value?**



Planting Pattern & Seeding Density

- ⦿ Consulted with three Texas ornamental sunflower growers.
- ⦿ Duplicate plots 5' long X 4 or 6 rows, seeding for (seeds per 1,000 sq. ft.), \$0.02/seed:
 - ⦿ 8" rows @ 2 planting points per foot (3,000)
 - ⦿ 8" rows @ 4 planting points per foot (6,000)
 - ⦿ 16" rows @ 2 planting points per foot (1,500)
 - ⦿ 16" rows @ 4 planting points per foot (3,000)

Locations & Measures

- ◉ Lubbock, NE Texas, College Station, & near Houston, TX
- ◉ Wichita, KS
- ◉ Data (plantings May to August)
 - ◉ Germination and stand
 - ◉ Days to 75% bloom (heart of cutting)
 - ◉ Height
 - ◉ Head diameter including petals
 - ◉ Marketable heads per 1,000 sq. ft.
 - ◉ Grower estimate of wholesale & direct sale value



Wichita, KS



Lubbock, TX



Initial Observations & Results I

- ◎ Heat curtailed some summer establishment.
Overall %stands were 43-85%
- ◎ Five of 16 ProCut observation lines did develop several secondary buds per plant, but remained small.
- ◎ At each site, the range of variety 75% bloom was 8-11 days
- ◎ Little difference in height.

Initial Observations & Results II

- ⊙ Bloom diameter only slightly larger with wider row spacing and lower seeding density (3.7-7.0”).
- ⊙ **Marketable** (estimated) blooms per 1,000 sq. ft. were 205 (small/thin stands) to 885.
- ⊙ Cut flower growers gauged potential crop value per 1,000 sq. ft. based on our description and bloom size:
 - ⊙ \$1 per stem wholesale, but \$1.50 in retail
 - ⊙ \$8,900 to \$38,500/acre @ \$1/stem or U-Pick.

Repeat Tests in 2025

- ◎ Lubbock, near Houston, Wichita.
- ◎ Earlier planting to reduce potential heat
- ◎ Branching multi-bloom sunflower will be compared vs. ProCut lines as some customers like more clustered look.

Sunflower Maze 2024, Hamilton Farms, Lubbock Co., TX

One planting date, four weekends of picking flowers.



Let's Talk...

