

The Value of Hoop Houses in the Great Basin

Lessons from the worst year in the worst place to attempt to farm
specialty crops

Lotspeich Family Farm

- Deeth, Nevada
- 5th Generation Family Farm
- Locally marketed vegetables, fruits, cut flowers
 - Farmers Markets, on-farm sales, wholesales, subscription baskets
- Pumpkin Patch
- On-farm classes & Events
- Farm to Fork dinners

Urban farming?

- 5280 feet in elevation
- High desert farming challenges:
 - Short & Unpredictable growing season – 60 to 110 frost free days
 - Cold Nights
 - Water limitations
 - Wind
 - Low humidity
 - 9-1/2 inches from the Sun



Miracle solution?

- Unheated, 6-mil plastic film covered hoop houses
- Shade Cloth
- Reliably grow summer crops late April – early October (1 to 2 USDA Growing zone improvement)
- Frost protection, wind protection, sunburn protection, increased humidity, irrigation efficiency
- Benchmark: Florida field yields



2024: Dreams become Nightmares

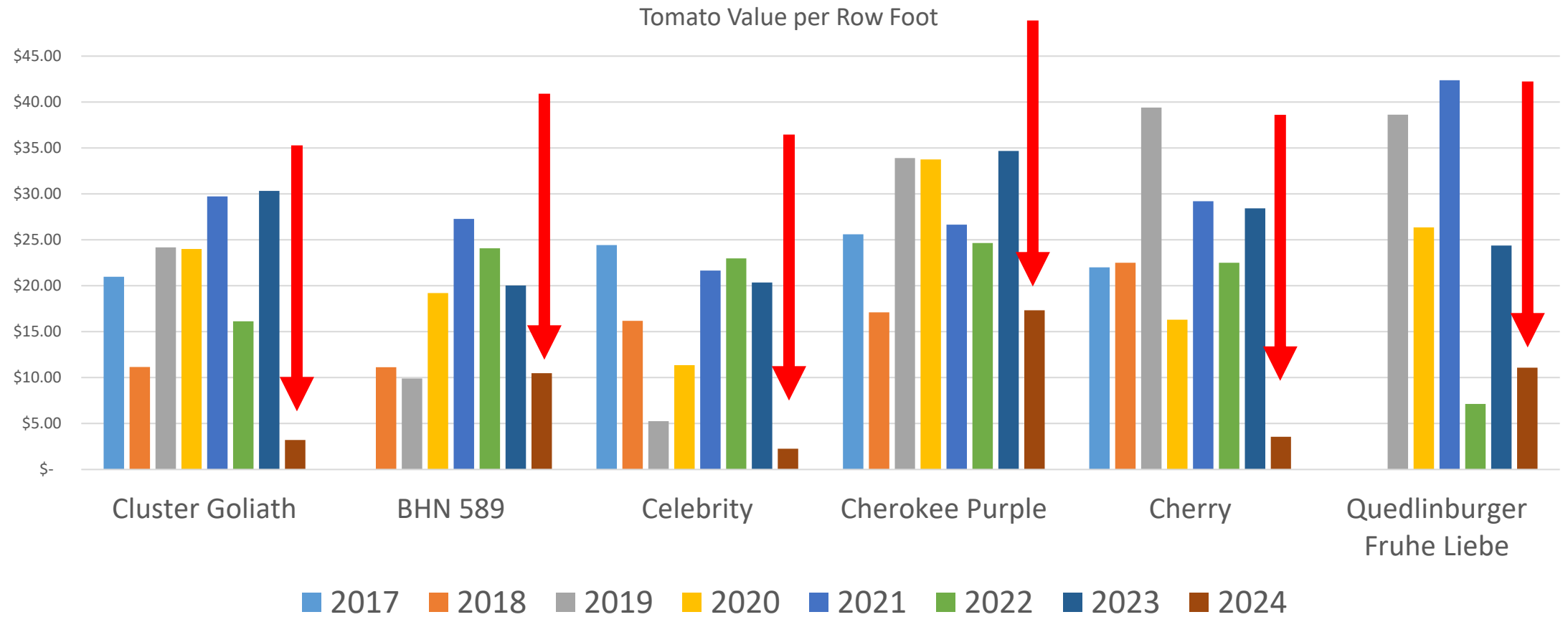
- Early heat = planting & early growing was going well
- June 16th 2024 High temperature: **90° F**
- June 18th 2024 low temperature forecast: **28°**
- Previous record low for cold-sensitive crops: **19°** (with damage!)
- June 18th actual low temperature: **18°**

- Complete loss of outdoor crops, severe frost damage for indoor crops

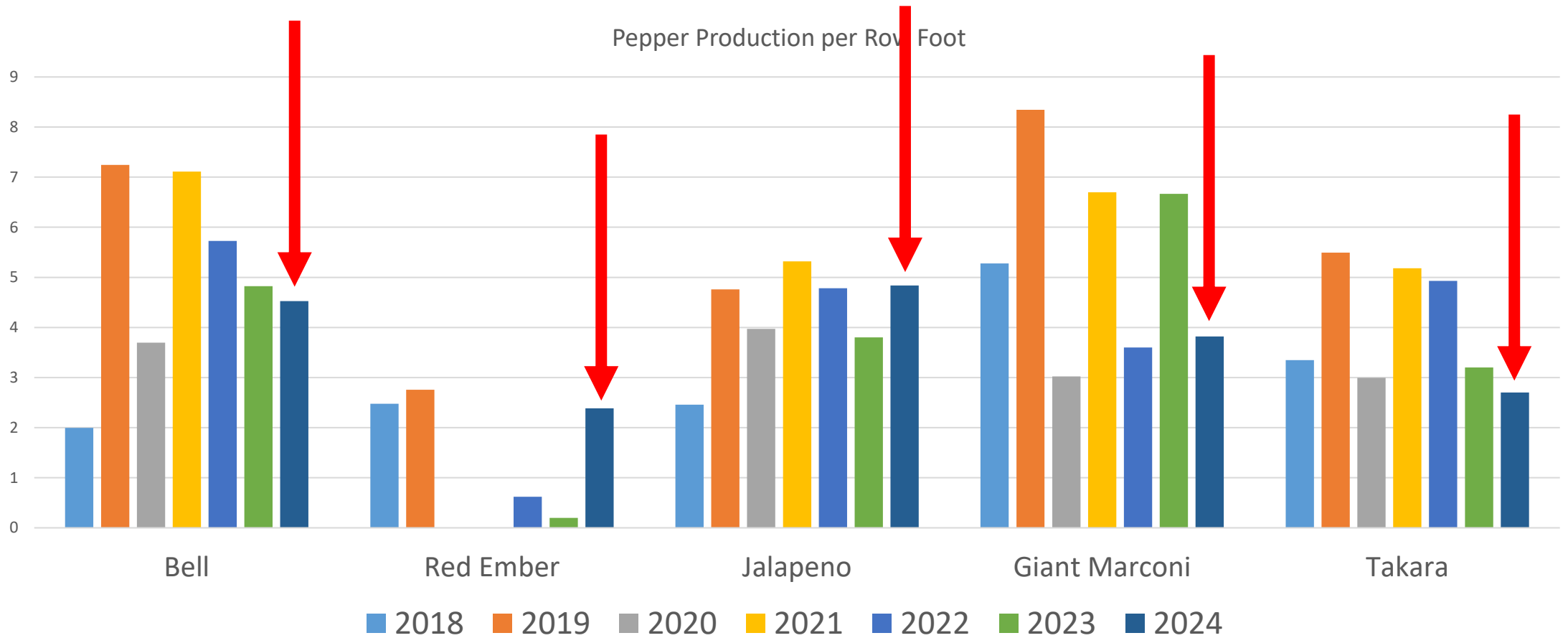
Response

- Outdoor tomatoes & Peppers replanted with melons, sunflowers
- Indoor:
 - 10-20% replanting with Nursery stock
 - Pruned back dead growth
 - Focused on events

Indoor results



Indoor Results



Takeaways

- Crop Profitability was possible both indoor and outdoor, despite a crippling short season
- This points to potential – there are still abundant resources to leverage
 - Solar & Geothermal heating
 - Access to larger markets
 - Efficiency is key in NV