

# Summer Lettuce Program

At Blue Gate Farm



# Lettuce History at BGF

- Tapestry Salad Mix (April-June, Sept-Nov)
  - (2005-2015) 40+ varieties. Direct seeded, surface sown, knife harvested
  - (2015-2016) 40+ varieties. Direct seeded, Johnny's 6-row seeder, knife harvested
  - (2016-present) 15-20 varieties. Direct seeded, Johnny's 6 row seeder, used #1501 greens harvester
- Head lettuce, direct sown (April-June)
  - Jericho, PIC, Buttercrunch, Bronze Arrowhead, Little Gem, Red Rosie
  - Poor germination
  - Weedy
  - Immature bolting
  - Overgrown fall TSM



## 2017 Trial

Coastal Star  
Magenta  
Muir



## 2018 Trial #1

Concept  
Magenta  
Cherokee  
Nevada  
+  
Kiribati  
Rutilai



## 2018 Trial #2

Germination:  
Magenta



# PFI Trial History

## Faux, Tripoli

Faux's variety trial setup was slightly different than the others – he replaced Cherokee with Bergam's Green, ran three successions instead of two, and harvested later than any other farm (Table 6). This late harvest was due, in part, to rainy weather, as shown in Table A1. Faux recorded the overall highest yields of any farm – 0.92 lb/ft<sup>2</sup> for Bergam's Green during succession 1. Within each succession, there were no statistical differences in yield among varieties.

Challenging weather conditions dictated much of the harvest at Faux. Heavy rainfall in late August and early September impacted the overall quality of the lettuce. With wet soil and some standing water, the plants reverted to root development from leaf development, and Faux delayed harvest as long as possible to allow the plants to size up. Only a portion of the succession 1 harvest was of the head size desired for market. Faux said, "Most of the lettuce held well-enough in the field; Nevada and Magenta held quality the longest, but did not bulk up too much more. Concept began to give out first, and then Bergam's Green."



Each of the lettuce varieties grown at Faux's farm. Clockwise from top-left: Bergam's Green, Concept, Magenta and Nevada.

CSA customers of Faux's farm reviewed the varieties for taste. He reported, "Magenta was known to our customers and continued to receive good reviews. Concept received the best reviews for taste of the new varieties. Bergam's

Green received the most compliments for visual appeal and was well-liked for commercial kitchen customers. Nevada received the fewest positive reviews for taste, though no one tagged it as having poor taste."

[2017 Summer Lettuce Trial](#) - Jill Beebout, Carmen Black, Kate Edwards, Rob Faux, Alice McGary, Jordan Scheibel

[2018 Summer Lettuce Trial](#) - Jill Beebout, Carmen Black, Kate Edwards, Rob Faux, Jordan Scheibel, Jon Yagla

There was quite a variation in trial results farm to farm and each farm had their favorites. You can find all the details in the reports on the PFI website.

<https://practicalfarmers.org/research/>

TABLE 6. Yield and quality characteristics for summer lettuce at Faux's farm.

SUCCESSION (HARVEST DATES)	VARIETY	YIELD*			QUALITY*				NOTES
		YIELD (LB/ FT <sup>2</sup> )	HEAD YIELD (HEADS/ FT <sup>2</sup> )	HEAD WEIGHT (LB/ HEAD)	"A" BOLTING	"A" TIP BURN	"A" BOTTOM ROT	"A" FLAVOR	
Succession 1 (Aug. 16 – Sept. 27)	Concept	0.67	1.28	0.52	90%	100%	100%	100%	Signs of bolting at end
	Magenta	0.69	1.80	0.38	100%	100%	90%	100%	
	Nevada	0.60	1.58	0.39	100%	100%	100%	90%	Taste declined toward end
	Bergam's Green	0.92	1.62	0.54	90%	100%	90%	100%	Signs of bolting at end; a little bottom rot
	LSD	0.61	0.85	0.25					
Succession 2 (Sept. 4 – 27)	Concept	0.21	0.56	0.33	100%	100%	100%	100%	
	Magenta	0.30	1.30	0.30	100%	100%	100%	100%	Best survival of all varieties in wet conditions
	Nevada	0.32	1.04	0.21	100%	100%	100%	100%	
	Bergam's Green	0.29	0.78	0.25	100%	100%	70%	100%	Acceptable after removing some bottom leaves
	LSD	0.67	1.92	0.50					
Succession 3 (Sept. 20 – Oct. 18)	Concept	0.17	0.69	0.15	100%	100%	100%	100%	Stunting and plant loss due to rain
	Magenta	0.28	1.11	0.17	100%	100%	100%	80%	Stunting and plant loss due to rain
	Nevada	0.30	1.11	0.18	100%	100%	100%	100%	Stunting and plant loss due to rain
	Bergam's Green	0.35	1.11	0.21	100%	100%	70%	100%	Stunting and plant loss due to rain
	LSD	0.66	2.00	0.35					

\*By succession within columns, values followed by the same letter are not statistically different with 90% certainty. Where no letters are reported, there are no differences among means.

\*Quality indicators for each variety were recorded during each harvest as acceptable (A) or unacceptable (U), though some farms used additional notations to indicate scoring. Scores were averaged over all harvest dates within a succession. Percentages indicate the percent of harvest events in which the grower rated the overall harvest as "A" for a quality indicator. A score of 100% indicates that the farmer scored the crop "A" during every harvest.

# 2019 Summer Lettuce

- Antares
- Cantarix
- Concept \*\*\*
- Kiribati \*\*\*
- Magenta \*\*\*
- Muir \*\*\*
- Tapestry Salad Mix \*\*\*



# Growing

- Only TSM is direct sown.
  - Mixed seed in 6-row seeder. 2 passes in 3' bed, 3 passes in 4' bed
- Head lettuce is tub sown every 2-3 weeks in 11.5" x 16.5" x 5" plastic tubs
  - .2 g raw seed per tub, single variety, yields 100-150 plants
  - .6 g pelleted seed per tub, single variety, yields +/- 100 plants
- Transplant when roots are well visible on tub bottom
- Divided and planted bare root.
- Hand-watered in, placed on drip tape.
- 12" spacing in row, 3 rows per bed (3' or 4' beds)



# Harvest/Post Harvest

- First crop harvested in morning
- Dropped into lidded 18 gal totes
- Hydrocooled in packing barn
- Spun mostly dry
- Packed in plastic totes with drain screens
- Stored in walk-in cooler at 43°



6/15/19



7/13/19



# Market

- Packed 25-30 large heads per cooler with ice packs (insulative paper & plastic)
- Display a limited number of heads or bundles in water pan (sunny side of the street)



6/15/19



7/13/19



# Challenges

- Cucumber Beetles
- Tarnished Plant Bug
- Lettuce Looper Caterpillar
- Deer
- Sclerotinia
- Stress-induced bolting
- Bitter flavor



# Benefits

- Customer Demand!
  - Market lettuce: 5/11/19-8/17/19
    - Only lettuce at market mid-summer (anecdotal from customers)
    - \$4/ head, sold out weekly
  - CSA lettuce: weekly 6/11/19-8/13/19

Tornado damage 8/20 ended the summer lettuce season

# Seed Sources

- Baker Creek
- Fedco
- High Mowing Seeds
- Johnny's Select Seeds
- Osborne Quality Seeds
- Seed Savers
- Sustainable Seed Co.
- Territorial Seed Co.

