

Summer Lettuce Program

Blue Gate Farm



Lettuce History at BGF

- Tapestry Salad Mix (March - mid June, Sept - March)
 - (2005-2015) 40+ varieties. Direct seeded, surface sown, knife harvested
 - (2015-2016) 40+ varieties. Johnny's 6-row seeder, knife harvested
 - (2016-present) 12-20 varieties. Direct seeded, Johnny's 6 row seeder, #1503 greens harvester
- Early years-head lettuce direct sown (April-June), Beginner mistakes (2+ years)
 - Jericho, PIC, Buttercrunch, Bronze Arrowhead, Little Gem, Red Rosie
 - Poor germination
 - Weedy
 - Immature bolting
 - Overgrown fall TSM, lettuce bouquets**
 - Proof we could learn!



PFI Trial History

Faux, Tripp

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/ft² 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."

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

SUCCESSION (HARVEST DATES)	VARIETY	YIELD*			QUALITY*				NOTES
		YIELD (LB/ FT ²)	HEAD YIELD (HEADS/ FT ²)	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	0.56	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 notation 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.

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/>

2017 Trial

Coastal Star
Magenta
Muir



2018 Trial #1

Concept
Magenta
Cherokee
Nevada
+
Kiribati
Rutilai



2018 Trial #2

Germination:
Magenta



2023 Summer Head Lettuce

Albachiara (new) - summercrisp, green

Alkindus - butterhead, red

Concept - romaine/summercrisp, green

Fusion - romaine/leaf, green

Kiribati** - butter/oakleaf, green

Magenta** - summercrisp, red

Milagro (new) - butterhead, green

Muir - Batavian, green

Nevada - summercrisp, green

New Red Fire - leaf, red

**grow every rotation



Growing



- Sow for 300 every 2 weeks (Feb-1 HT, Mar-1 field)
- Winstrip-100's early field, 72ct later
- Minoru G-12 seeder (pelleted) <https://japan-agritrading.com/>
- Tub sown in 11.5" x 16.5" x 5" plastic tubs (4" soil)
 - .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 bottom (cell or tub)
- Hand-watered in, placed on drip tape.
- 12" spacing in row, 3 rows per bed, checkerboard (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 38-42° (seasonal)



6/15/19



7/13/19



Challenges

- Weather!
- Cucumber Beetles (late summer/fall)
- Tarnished Plant Bug (late summer/fall)
- Lettuce Looper Caterpillar
- Deer
- Sclerotinia/white mold
- Bolting
- Bitter flavor, spit test
- Bottom rot (esp. Muir)



Benefits

Customer Demand!

- 2022 CSA Lettuce EVERY WEEK! (20 weeks 6/7-10/18)
- VegEmail Lettuce 4/26/22-12/20/22
 - missed 2 weeks (8/27 & 9/1) *new variety bolted*

- *Market, lettuce: 5/4/19-10/31/19 (missed 2 weeks, mid-May)
 - Only lettuce at market mid-summer (anecdotal from customers)
 - \$4/ head, sold out weekly
 - Not enough volume for full CSA distribution

Seed Sources

- Baker Creek Heirloom Seeds
- Fedco
- High Mowing Seeds
- Johnny's Select Seeds
- Osborne Quality Seeds
- Seed Savers
- Territorial Seed Co.
- True Leaf Market



Blue Gate Farm



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