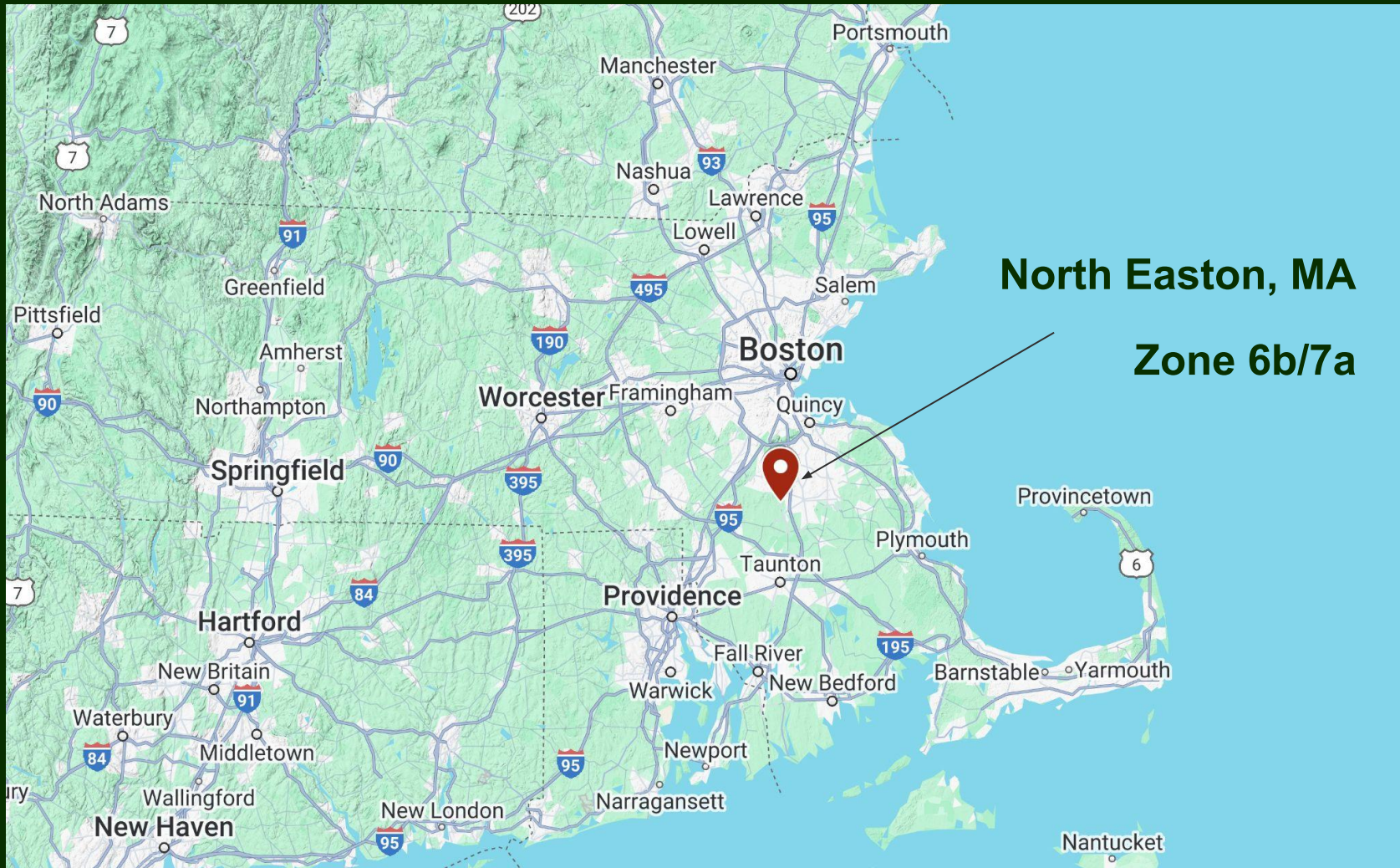




Organic Field
Tomatoes
at
LANGWATER FARM

North Easton, MA

Kevin O'Dwyer



North East, MA
Zone 6b/7a







Wheaton Fields



Marshall Fields



Langwater Farm Store (2022)





SPECKLED
ROMA

This elegant
has a nuance
great tomato
flavor! Which
it great for
and even Best
SALSA! HEIRL

Why grow field tomatoes?

- Flavor
- Working conditions
- Limited greenhouse space



Tomato Successions

	SEED	PLANT	HARVEST
1st succession	3/8	5/1*	7/10
2nd succession	3/20	5/15	7/25
3rd succession	4/1	5/21	8/5
4th succession	4/15	6/1	8/15
5th succession	5/1	6/15	9/1

*with hoops & row cover

Varieties

- **Slicing:** BHN 589, Tasti-lee, Red Bounty, Mt Fresh Plus, Galahad, Mt Merit, Chef's Choice Orange, Damsel
- **Cherry:** Sungold, Sunorange, Braveheart, Five Star, Red Pearl, Nova, Sunpeach, Chocolate Sprinkles
- **Heirloom** (successions 1-3 only): Cherokee Purple, Cherokee Green, Striped German, German Johnson, Speckled Roman, Captain Lucky

Hot Water Seed Treatment

- All tomato seeds are treated in a hot water bath for 25 minutes at 122F
- Sous vide sticks are much cheaper and some say work just as well



Seedling Propagation

- Sanitation is critical
- Sown in 288 prop trays in McEnroe organic compost, covered in vermiculite
- Potted up 2-3 weeks post germ in 32ct prop trays



Seedling Propagation

- Night time temp maintained above 60F/ Daytime below 80F
- Trays spaced 5" apart to reduce stretching when plants are 6" tall
- After ~6 weeks plants are hardened off in cold frame for 2-4 days



Field Preparation

- Compost is spread at 150 yards/acre or ~1" coverage
- Target pH: 6.5-6.8
- Fertilizer is applied generally at rates of:
1,200lbs/A 8-2-2
150-200lbs/A 0-0-50
1000lbs/A hi-cal lime*
*if required



Field Preparation

- Disc Harrow
- Chisel Plow
- Perfecta
- Raised beds w/ 60" black plastic mulch & double drip tapes



Field Planting

Spacing

- 18" determinate (slicing varieties)
- 24" indeterminate (cherry & heirloom)



Field Planting

- Stocky transplants are best
- Avoid over-hardening or planting leggy transplants



Pruning, Staking, & Trellising



Pruning, Staking, Trellising, & Irrigating

- Prune ground suckers
- Stakes can be reused for 2-3 years
- All used stakes are cleaned & sanitized in an OxiDate bath
- Basket weave weekly 3-4x before harvest
- Only handle when dry
- Drip irrigate 1"/weekly



Spraying

- 5-7 day schedule
- Rotating Howler with Cueva & OxiDate tank mix
- Stronger copper formulations used only prior to extended periods of leaf wetness





Healthy tomato foliage

Harvesting



Black crates with mesh corn bag
pad lined with Kraft paper



Yields & Income

	Acres	Yield (lbs)	Sold (lbs)	Loss (%)	Income
Slicing	1.0	34,675	32,485	6.3%	\$117,585
Cherry	0.5	7,729	7,026	9.1%	\$57,973
Heirloom	0.35	8,835	5,935	32.8%	\$28,462
Roma	0.35	7,200	6,972	3.2%	\$15,728
TOTALS	2.2	58,439	52,418	10.3%	\$219,748

Pricing	Retail	CSA	Wholesale
Red Slicing (lb)	\$4.25	\$3.61	\$2.35 (\$47 for 20lb)
Red Slicing, Utility (lb)	\$2.10 (\$42 for 20lb)	n/a	\$1.42 (\$28.50 for 20lb)
Cherry (pint)	\$7.25	\$6.16	\$4.17 (\$50 for 12 pints)
Heirloom (lb)	\$5.00	\$4.25	\$4.40 (\$44 for 10lb)
Roma (lb)	\$4.25	n/a	\$2.40 (\$48 for 20lb)

Materials & Equipment Costs (Slicing Tomatoes, per acre)

Plastic & Irrig. Supplies (plastic mulch, drip tape, lay flat, fittings)	\$760	Field Prep: Machinery/Operator (disc, spread comp & fert, chisel, perfecta, bed lay, plant; 25 hrs @ \$60/hr)	\$1,500
Seed	\$1,000	Stakes & String (~2,420 stakes @ \$0.50; 26 boxes string @ \$7.50)	\$1,405
McEnroe Potting Soil (organic; 25 bags @ \$13.75/bag)	\$350	Spray Materials (~10 applications, alt. Cueva & OxiDate w/Howler)	\$560
Greenhouse Space/Fuel (~6 weeks)	\$750	Spray: Machinery/Operator (~10 applications/1.5hr @ \$60)	\$900
Fertilizer & Amendments (8-2-2, SOP 0-0-50, hi-cal pel lime)	\$938	End of Season Field Prep: Machinery & Operator (mow, rip, disc, spread; 6hr @ \$60)	\$360

Total: \$8,523

Production Labor Cost (Slicing Tomatoes, per acre)

Hot Water Seed Treatment (10 hr @ \$35)	\$350	Staking & Weaving (100 hr @ \$23)	\$2,300
Greenhouse Seeding, Potting & Handling (25 hr @ \$23)	\$575	Harvesting 34,675 lbs (120 lbs/hour: 290 hrs @ \$23)	\$6,670
Field Planting w/Water Wheel (12 hrs @ \$23)	\$276	Grading & Packing (34,675 lbs; 200 lbs/hour: 175 hrs @ \$30)	\$5,250
Pruning, Weeding, Irrigating (40 hrs @ \$23)	\$940	End of Season: Trellis & Plastic Removal (20 hrs @ \$23)	\$460

Total: \$16,801

Slicing Tomato Profit

Slicing Tomato Income (1 acre)	\$117,585
Total Costs Materials & Equipment \$8,523 Labor \$16,801	-\$25,324
Gross Profit	\$92,261



Thank you to Anne Marie Walsh, Kate Salfelder, and the amazing crew at Langwater Farm

LANGWATER FARM

North Easton, MA 02356

langwaterfarm.com

