



# IPM Practices on Our Diversified Organic Farm

## LANGWATER FARM

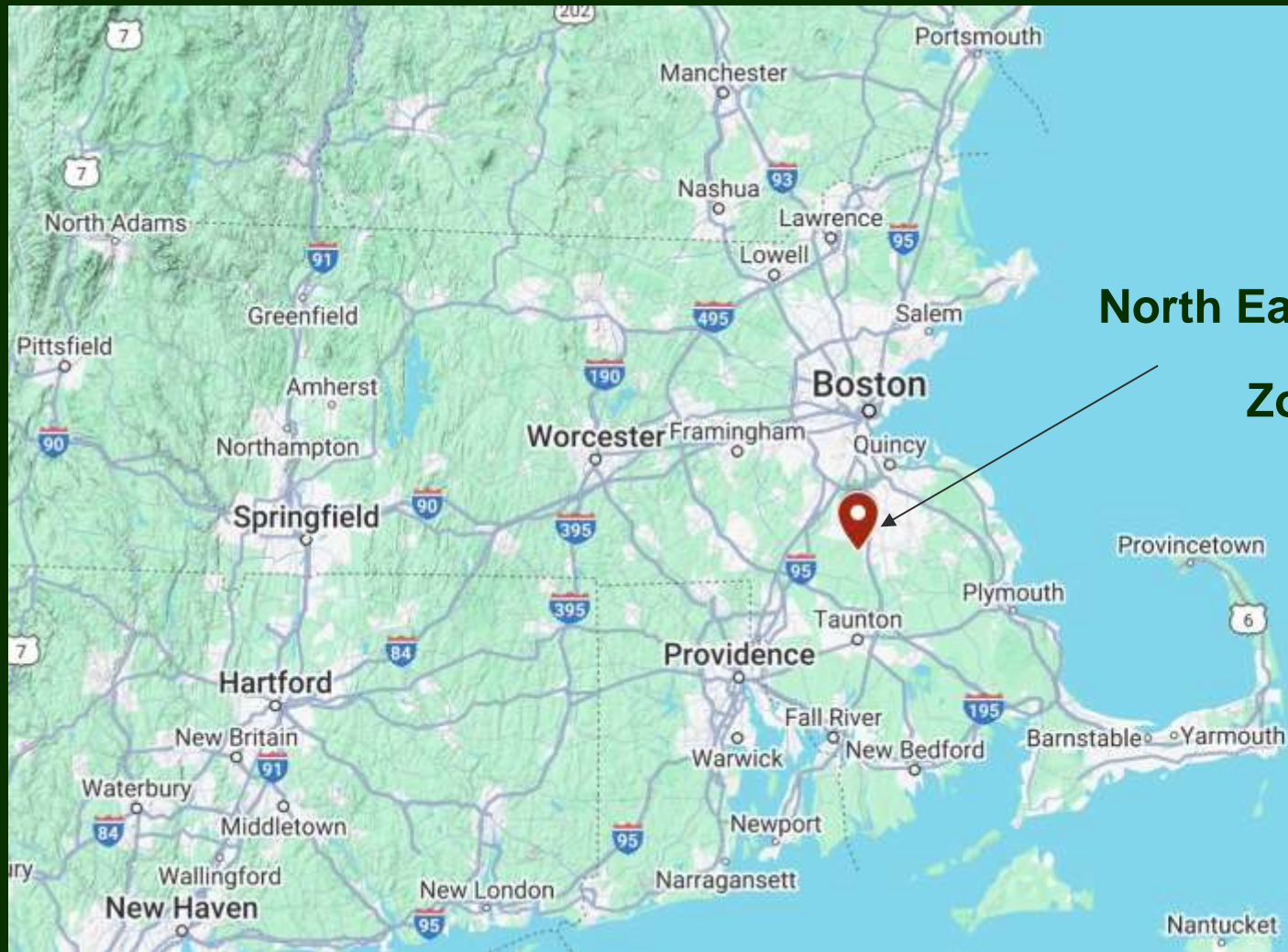
North Easton, MA

---

Kevin O'Dwyer

**North East, MA**

**Zone 6b/7a**







Langwater Farm Store (2022)









# Our IPM strategies for disease and pest management

*Crop Rotation*

*Deterrence*

*Exclusion*

*Prevention*

*Sanitation*

*Biopesticides*

# Crop Rotation

- Rosaceae (strawberry) - 5 year
- Solanaceae - 5 year
- Amaryllodaceae - 4 year
- Umbelliferae - 4 year
- Chenopodiaceae - 4 year
- Cucurbitaceae - 3 year
- Brassicaceae - 3 year



# Deterrence & Exclusion

- Silver plastic for onions
- Kaolin clay on summer transplanted cucurbits
- Row covers













# Sanitation

- Good sanitation is critical for disease prevention
- Tomato and allium seeds are hot water treated
- Greenhouse equipment, benches, & all surfaces are cleaned of all organic matter and debris, and then sanitized with OxiDate
- Propagation trays are cleaned and sanitized with OxiDate
- Re-used stakes for trellising are cleaned and dunked in OxiDate

# Hot Water Seed Treatment

- All tomato seeds are treated in a hot water bath for 25 minutes at 122F
- All onion & shallot seeds are treated for 20 minutes at 122F
- Sous vide sticks are much cheaper and some say work just as well







# Pruning, Staking, & Trellising

- Improves air circulation
- Reduces hours of leaf wetness
- Prevents disease



# Biopesticides

- Implementing proper cultural controls reduces disease inoculum and increases the efficacy of organic pesticides
- Adherence to spray schedules and rotating materials are important
- Boom sprayer with 30" drop nozzles improves leaf coverage by targeting underside of leaves





## OMRI Fungicides (applied @ 100 gal/acre)

- OxiDate 5.0
- Double Nickel
- Regalia
- Howler
- Cueva
- Mastercop
- Sil-Matrix

## OMRI Insecticides (applied @ 50 gal/acre)

- Pyganic
- Entrust
- AzaGuard
- Dipel DF

# Tomatoes

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



# Strawberries

- Annual system with August planted plugs
- OxiDate applied after straw removal in early spring; 2-3 applications
- Weekly applications of Howler applied during bloom and through harvest; timed for temps above 50F in evenings
- Sil-Matrix applied before rain events during fruiting
- OxiDate applied post rain events





# Onions

- Switch to silver plastic has eliminated the need for insecticide application to control thrips
- 7-10 day spray schedule starting mid/late May
- Rotating Double Nickel LC & Regalia tank mix with Cueva & OxiDate tank mix
- 1:100 applications of OxiDate 5.0 used after any rain event during field curing



# Sweet Corn

- Trapping and monitoring for moth counts to determine spray schedule
- Rotate between Dipel and Entrust w/ Nu-Film 17 Spreader sticker
- 50gal/acre
- Evening applications are best to reduce spray dilution from dew and avoid the spray material breaking down quickly in sunlight
- Drop nozzles target silk well



## OMRI Fungicides

Product	Rate	Cost
Howler	2.5–7.5 #/A	\$9.50/#
Cueva	0.5–2.0 gal/A	\$49/gal
OxiDate 5.0	1:100 – 1:256	\$36.50/gal
Double Nickel	1–6 qt/A	\$18.50/qt
Regalia	2–4 qt/A	\$25/qt
Mastercop	0.5–3.0 pints/A	\$50/gal
Sil-Matrix	0.25–1.00%	\$40/gal

## OMRI Insecticides

Product	Rate	Cost
Pyganic	4.5–18 fl oz/A	\$650/gal
Entrust	3–6 oz/A	\$585/qt
AzaGuard	10–16 fl oz/A	\$250/qt
Dipel DF	0.5–2.0 #/A	\$25/#



# LANGWATER FARM



North Easton, MA 02356  
[langwaterfarm.com](http://langwaterfarm.com)