

*An Urban Farm in Newark, New Jersey*

# Hawthorne Avenue Farm.

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# Hawthorne Avenue Farm

Newark, New Jersey

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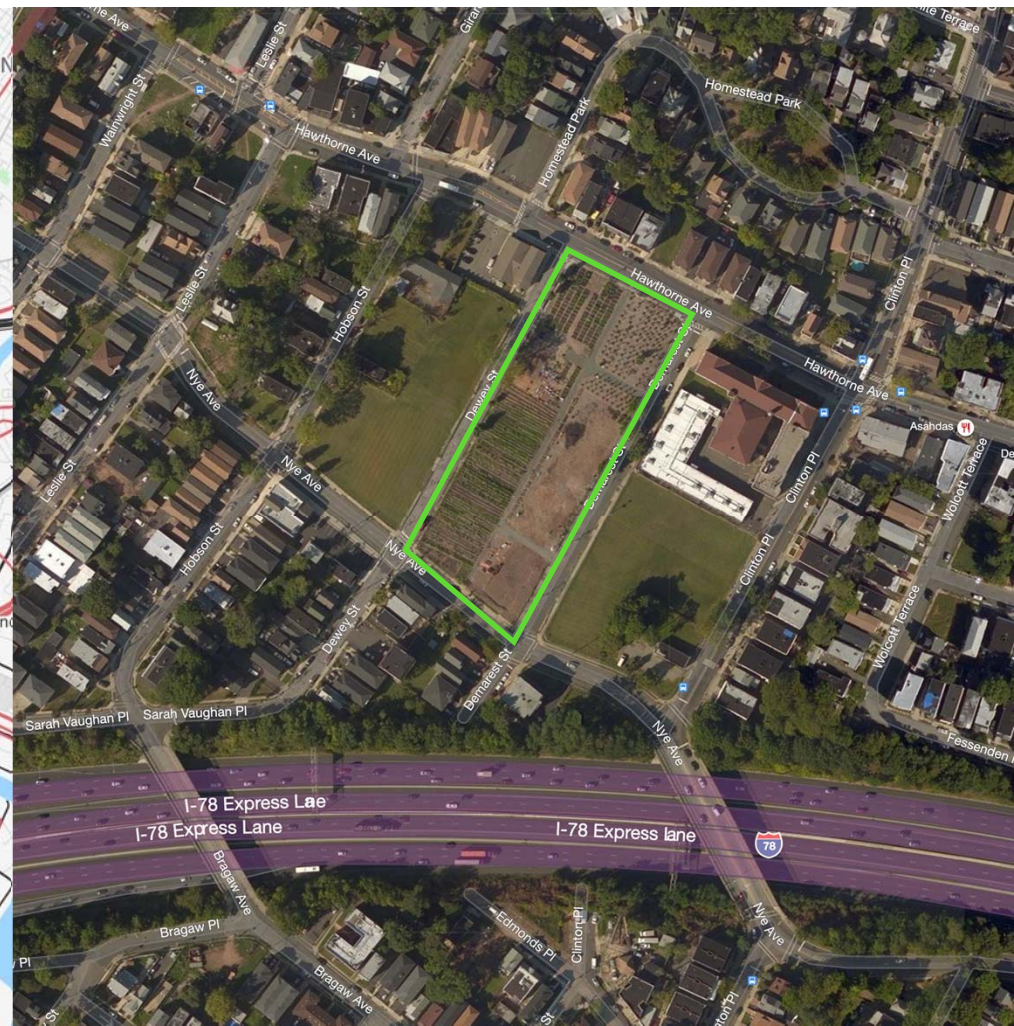
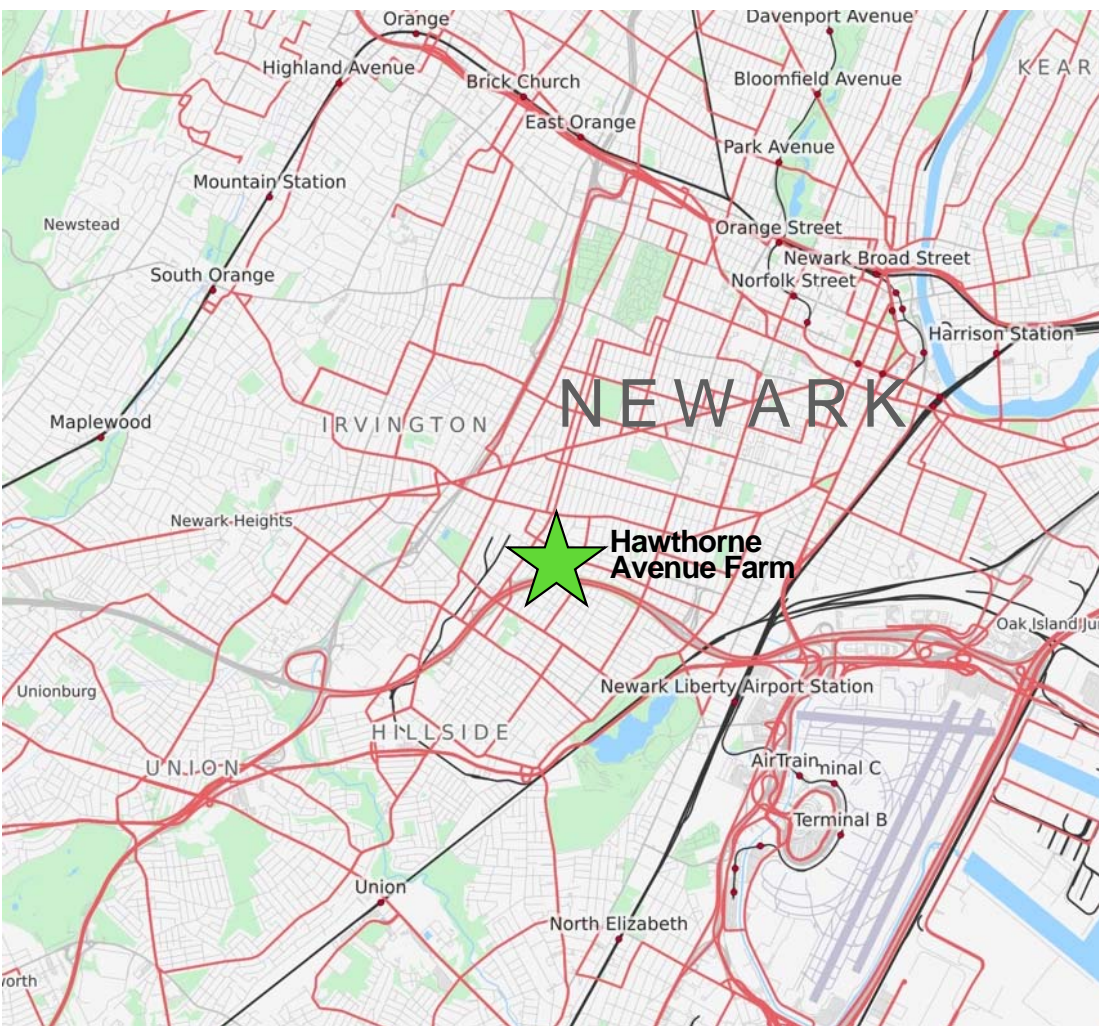
**Mark Kearney**

*Farmer*

1. Our Farm
2. Challenges
3. Strategy for 2019
4. Lessons learned & what's next

Hawthorn Ave.  
Urban Farm.





We are a 3-acre urban farm in Newark, NJ



Our land is organized for several different uses.

- 90 crop rows of 50' to 70' in length
- Orchard
- 90' x 25' Hoop house
- Public school garden
- 200-bed community garden
- Community learning circle

## CROP PRODUCTION

30+ crops, 1000+ pounds produce harvested.

- Asparagus
- Beans
- Beets
- Bell Pepper
- Broccoli
- Carrots
- Chives
- Parsley
- Cilantro
- Dill
- Celery
- Collards
- Cucumber
- Eggplant
- Garlic
- Green Onion
- Kale
- Lavender
- Salvia
- Lavender
- Fennel
- Oregano
- Tomatoes
- Peas
- Pepper
- Potato
- Radish
- Shallots
- Garlic
- Spinach
- Summer Squash
- Strawberry
- Sweet Potatoes
- Swiss Chard
- Watermelon
- Winter Squash

# We have 135 trees in our orchard.

- Apple
- Peach
- Pear
- Plum
- Sweet Cherry
- Sour Cherry
- Medlar
- Persimmon



Farming in  
Newark.

2





FARMING IN NEWARK

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**As an urban farm, we face  
unique challenges of our  
location and scale.**



An urban environment brings unique urban challenges.



- Lease restrictions, responsibilities for the site, uncertainty of status
- Limited access for vehicles
- Security concerns limit our ability to provide open access to the farm
- Soil & water quality & safety (lead)
- Requirements for accepting SNAP, WIC, Senior vouchers.
- Gangs, prostitution, trash, vermin

Bigger than a garden, smaller than a rural farm.

- More crops means more complicated planning, pruning, pests, harvesting.
- Too big to maintain only by hand, some mechanization needed.
- Scale increases admin work, taking time from farming tasks.
- Weeding and other maintenance is vast and labor intensive

Past decisions and experiments were not always successful.

- Vehicle entrances on side streets instead of main streets
- Orchard trees in boxes
- Production rows in wrong direction for maximum sun exposure
- A single, small standpipe inadequate to water needs of the entire site
- Trees planted in production rows

## Continuity of farm operations was a challenge.

- We started 2019 after a year of the farm being understaffed.
- Irrigation system had not been well-designed or maintained
- No map, knowledge of what had been planted where
- No info on soil/water quality
- Community garden beds were starting to fall apart after 5 years



## Resources are limited.

- Water: 1 spigot, 1 hose, broken irrigation.
- Lack of tools and equipment.
- No electricity.
- 2 staff for 3 acres, 7 days a week
- Variable and unpredictable flow of volunteers
- Mismatch of tasks and volunteer abilities, interests

Managing a giant community garden has its own special issues.

- Bed configuration and gardener assignment.
- Water access and sharing.
- Different farming techniques.
- “Guest” gardeners.
- Gardener relations and politics.
- Uninvited pick-your-own.
- Security of farm tools.

The most important thing  
we had to do was to  
prioritize.

2019 strategy.



# We choose 6 foundational priorities.

- Clean and healthy soil
- Safe and efficient water access
- Appropriate tools
- Planting and harvesting plan
- Orchard
- Plot-it-Fresh Community Garden



## We tested and took steps to improve our soil.

*With assistance from the USDA's Natural Resource Conservation Service and Rutgers Soil Lab, we evaluated the safety and quality of the soil on our farm.*

- Assessed soil and water for heavy metals, including lead
- Tested soil fertility and amended per recommendations
- Planted by family to facilitate crop rotation
- Reoriented rows to mitigate soil and water erosion
- Monitored soil conditions more frequently

## We designed & installed improved irrigation.

*Extended irrigation to all of the farm's production rows, even as we increased the number of production rows by 50%, as well as the hoop house and our 15 raised beds.*

- Assessed water requirements based on planting plan (NRCS)
- Designed appropriate irrigation system (NRCS)
- Procured the 100s of necessary parts from multiple suppliers
- Installed over 4 days in August

## TOOLS

# We acquired more and better tools with lots of creativity and help.

*We were able to turn an abundance of goodwill in the Greater Newark area and the “Garden State” farm community into the tools we needed.*

- inventoried tools on site
- scavenged from all corners (basement, former farm site): wood, trellising, irrigation parts, chicken coop for shed
- announced to all what we needed
- Received donations of an industrial and hand mowers, weed wackers, seed rollers, rakes, hoes, hoses, chain saw.

## Planning enabled sharing.

*When we received a donation of over 900 seedlings, having a plan in place enabled us to easily substitute seedlings for seeds.*

*We shared materials we couldn't use with other community gardens.*

- Selected crops based on past sales, program requirements, and staff feedback
- Requested seed donations/card catalog (Johnnys, High Mowing, NPL)
- Invited and actively welcomed volunteers (corporate, public sector, students, individuals)
- Weighed harvest to establish baseline

# Understanding our orchard's own ecosystem.

*We learned healthy fruit doesn't just appear.*

*The orchard requires a sophisticated approach involving soil science, pests and pollinators, disease, pruning, timed harvesting, and coping with "volunteer" picking.*

- Tree census to know which varieties we had
- Soil and Foliar tests to ID soil needs and amendments
- Integrated Pest Management (Rutgers): mating disruptors, insect monitoring
- Connected with Northern NJ Fruit Growers Association



# Learning from the gardeners and seeing how crucial the garden is in their lives.

*Our community gardeners come from many cultures and parts of the world.*

*We learned from the gardeners about a wide variety of crops, their growing methods, nutritional value, and cooking techniques.*

- Getting to know the community gardeners and their needs
- Garden assessment: water, soil, beds, tools.
- Understanding growing choices and techniques of different cultures
- Callaloo, Spider Plant, Pumpkin leaves, Amaranth, Peanuts, growing for leaves and seeds.

# Targeted efforts built strong foundations.

Soil	Water	Tools	Planting & Harvesting	Orchard	Garden
Clean and healthy soil	Tailor-made irrigation system	Critical tool, labor, and monetary donations and partnerships	Production rows increased by 50%	Maintenance schedule	Budgeting for needs of gardeners
Sustainable soil with best practices	Reduced watering from 20 hours of labor a week to 15 minutes a week	Maintenance reduced from 8 hours a week of weed wacking to 2 hours mowing.	Succession planting	Relationships with expert technical support providers	Shared knowledge
			Greater distribution of harvest		Community

Focusing on a few  
basics helped our  
entire farm to grow.

Lessons learned  
and what's next.



# 3 lessons made all the difference.

## **#1 Relationships.**

The most important thing is relationships. You give, you get, you share.

Don't be afraid to show that you don't know. Formal and informal

## **#2 Humility.**

professional development is fulfilling and fun.

Have a written plan, keep a weekly journal, and be flexible.

## **#3 Planning.**



# We are excited to keep growing our farm and ourselves.

- Exploring soil regeneration and carbon sequestration
- Expanding irrigation to community garden
- Protecting our irrigation system and continued water testing
- Exploring mechanization
- Improving storage and security
- Strategic planting: specialty crops, seed donation requests, trellising
- Professional development in pesticides for organic orchards

Greater Newark Conservancy

# Hawthorne Avenue Farm

446 Hawthorne Avenue, Newark NJ

# Visit us!

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