Teens for Food Justice

TFFJ Prospective School Partner FAQs*

***NOTE: This is a living document, and is revised based on TFFJ's real-time program evolution. Please refer to the document filename and header for the most recent revision date, as information may have changed since your last review.**

Overview

What is TFFJ's mission?

Teens for Food Justice (TFFJ) is building a food-secure future through school-based, youth-led hydroponic farming, providing local, sustainably-grown produce to food desert communities and building health, education, and opportunity equity for all New Yorkers and beyond. TFFJ trains students in Title I middle and high schools to maintain indoor hydroponic farms through hands-on farm education in STEM, health, and culinary curricular day classes, as well as food justice and nutrition-focused afterschool programming.

TFFJ's farm-in-school model not only improves immediate food access but also equips youth from marginalized communities with tools to become leaders and advocates in shaping equitable food systems change. Student-grown produce is served daily at school lunch, distributed biweekly to campus families, and distributed to the surrounding community's food-insecure residents, making healthy food available where it is most lacking in underresourced communities of color.

We currently operate high-capacity hydroponic farms in schools in communities experiencing low healthy food access across New York City and in Denver, Colorado. Our impact today includes 8 farms, 20 participating schools, 7,500 students fed, and 45,000 pounds of produce grown for students and their communities.

How does our program work?

TFFJ constructs and installs high-capacity hydroponic growing systems inside Title I middle and high schools, providing a hands-on learning environment where students seed, transplant, and harvest hundreds of pounds of fresh produce for their campus cafeterias' lunch service and for free distribution to their families and local communities.

Through our program, students:

- Develop and deepen skills/knowledge in a range of STEM subjects through their farm work
- Receive hands-on workforce development training in indoor urban agriculture
- Create and implement marketing and distribution plans for surplus harvest
- Receive training in nutrition and healthy food choices, food justice advocacy, and sustainable farming practices
- Develop into the next generation of leaders in cutting-edge urban agribusiness and the fight for food equity

TFFJ's hydroponic growing systems require no green space, are not susceptible to changing weather patterns or conditions, use little energy, produce plants year-round, and have very high yields. TFFJ is not just providing a technologically advanced solution to the lack of affordable, fresh food in food desert

communities — we are building the foundation for a sustainable social movement to close the gaps in food access, health outcomes, and marketable skills between historically well-resourced and under-resourced communities.

What do we grow?
Our student farmers grow multiple varieties of lettuce plus a variety of leafy greens (including bok choi, kale, swiss chard, and collard greens), herbs (such as basil, parsley, sage, and cilantro), and fruiting crops (including tomatoes, cucumbers, and peppers).

How much do we grow and in what timeframe?
TFFJ farms grow between 100 and 2,000 pounds of fresh produce per month. Lettuces and baby greens take between 4 to 5 weeks to grow to maturity. Larger leafy greens require approximately 6 weeks and the largest (such as collards) take 8 weeks. Fruiting crops require a minimum of 3 months to begin bearing fruit but produce for a 4- to 6-month cycle.

In our large farms, students harvest produce daily and serve it in the cafeteria. On an ongoing basis, produce is distributed to those most in need and sold affordably at farm market/community events that include youth-led health and nutrition outreach activities.

Where do we work?
TFFJ currently has five active farm sites across NYC and one site in Denver, each of which can produce thousands of pounds of produce per year to serve all of the co-located schools on campus through the cafeteria as well as residents of the surrounding community.

Farm Campus Name	Farm Location	# Schools Served	# Students Fed	# Students Engaged in Programming	Farm Production Capacity (lbs/year)
DeWitt Clinton Educational Campus	The Bronx, NY	3	2,100	453*	Up to 10,000
MLK, Jr. Educational Campus	Manhattan, NY	6	2,200	274*	Up to 10,000
Far Rockaway High School Educational Campus	Queens, NY	4	1,700	261*	Up to 7,000
Urban Assembly Unison School	Brooklyn, NY	2	460	60*	Up to 2,500
Scholars' Academy	Queens, NY	1	1,180	284*	Up to 8,000

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Farm Campus Name	Farm Location	# Schools Served	# Students Fed	# Students Engaged in Programming	Farm Production Capacity (lbs/year)
Murry Bergtraum Educational Campus	Manhattan, NY	4	1,300	113**	Up to 9,000
MS053	Queens, NY	2	500	104**	Up to 6,000
Bruce Randolph School	Denver, CO	1	690	101*	Up to 12,000
**In school year 2023-24* ***Farm launched in Spring 2025; totals to come*					

Program Impact

How does our program benefit students?

TFFJ is unique in providing a youth-run production farming model that can yield thousands of pounds of fresh food each year while simultaneously providing students with education in STEM, nutrition, health, food policy, and advocacy leadership.

Students engage in:

- Hands-on learning in hydroponic farming technology (including the physics of the growing system's operation and the chemistry and biology of growing plants in an enclosed environment without soil).
- Specialized programming in environmental sustainability and vocational training/workforce development that students can specialize in as part of a career exploration program.
- Nutrition and health education training in topics including healthy recipe preparation utilizing the plants from the farm; how to shop for healthy food on a tight budget and/or one that uses food-assistance tools; fitness and healthy behaviors; food policy and community food access mapping; and food justice advocacy.
- Development of the leadership skills necessary to effectively share their knowledge with fellow students and the greater school and local community through ongoing outreach events throughout the year, thus improving overall awareness of healthier eating and lifestyle behaviors of its members.
- Entrepreneurship training through the operation of the food distribution program.

Student Impacts

1. Health: Through independent surveys, TFFJ has tracked and documented increased consumption of produce by participating students and their families and a shift toward making healthier food choices by kids and parents through ongoing exposure to the program. **(After participation in the program, 100% of students say that they understand how eating nutritious food makes a positive difference in their health.)**

2. Academics: Independent surveys document improved student confidence in STEM subjects through involvement in the program. Students become chemists, measuring and adjusting pH and electro-conductivity to keep their crops healthy; biologists, tending to plants from seed to harvest and mastering the inner workings of how they process nutrients, store energy, and grow; and engineers, building machines that grow food for their schools and communities. They also become nutrition and fitness experts, learning from chefs and athletes how to create and enjoy healthy, balanced meals and stay active and strong **(86% of students reported increased understanding of topics related to environmental sustainability through the program.)**

3. Leadership: Students develop and hone key leadership and communications skills as ambassadors for nutrition, health, and more through farm tours, cooking demos, and fitness workshops they create and provide to their peers and families. **(95% reported that they "feel like more of a leader in the community.")**

How do we involve and support the communities we work in?
TFFJ farms and programming significantly increase access to, and awareness of, healthier food choices and behaviors in these communities through large-scale local production of healthy food resources and community education and outreach at food distribution events.

During community engagement and food distribution events:
- Community members receive produce for free.
- Parents see their children cooking and consuming healthy meals made with TFFJ produce, which they share with families through recipe tastings.
- Cooking demonstrations show recipients how to make healthy, affordable recipes at home using TFFJ produce and other low-price items.

Operations

What do we need from a school to build a farm?
Room Requirements
A hydroponic system depends on an adequate supply of water that constantly re-circulates through the growing environment. The water is conditioned with plant nutrients that replace those normally found in soil, and grow lights replace natural light in the indoor environment.

Therefore, a candidate for a farm-ready room fulfills the following requirements:

Room Requirements & Context	
Room Size	• **The room is at least 1,000 square feet in size.** We have found that rooms smaller than this size cannot provide adequate space to grow food at scale to meet the needs of school cafeterias, students and their families, and local community members and implement the program comfortably for students, teachers, and Farmer-Educators.

Room Requirements & Context	
Plumbing	• The room already has a sink or plumbing supply lines that can feed two sinks — one for farming and one for food handling. • If there is not an existing sink in the room itself, the room should share a wall with one that does.
Electricity	• The room has its own breaker box with 200 amps of available electricity to support the lights, pumps, and other electronics required to operate the system. The room also has HVAC to maintain appropriate climate controls. • If the room does not already have an existing breaker box, a nearby breaker box that can support a subpanel will work.
Flooring	• The room has a flooring material that will support the weight of the systems and is not susceptible to damage from direct contact with water or from high humidity. • Wooden flooring or VCT over a wooden subfloor will not suffice. • Floor drains are highly recommended as an addition to the floor surface
Ceilings	• The room's ceilings are between 9 and 16 feet high. • Ceilings outside of that range will either be too low to accommodate our growing systems, or will likely render the room too hot to properly air condition due to sunlight exposure.

WiFi Considerations

Some of our equipment requires internet access to enable our team to monitor and configure aspects of the system's operations and provide remote troubleshooting and support to the Farmer-Educator. Specifically, we need access to a WPA/WPA2 wifi connection (Wifi that requires the use of a password) or LAN access to a protected network. Unfortunately, our equipment cannot connect to an open "Guest Network."

We ask the following questions related to internet connectivity during initial site visits:

- Does a password-protected Wifi network exist on campus?
- Will you provide us with credentials for it?
- Do you know if your school shuts off WiFi during school breaks?

Renovation & Construction

All classroom renovation and construction work required to make the room farm-ready must be performed by school/district employees or by licensed architects and contractors employed by the school or district and managed by the system. **TFFJ does not direct, supervise, manage, or implement any work related to room renovation or construction**. TFFJ construction work is limited to the fabrication, installation, and commissioning of the hydroponic growing systems themselves.

- **Please note:** In order to expedite the design process of the layout of the hydroponic systems, plumbing fixtures, and electrical outlets, TFFJ will need access to building plans that show the classroom floor, plumbing, and electrical systems.

School-Based Staffing and Other Support

Once the farm is built, the work (and fun) begins! Because a new farm represents a significant change within any school community, a successful TFFJ collaboration requires a high degree of buy-in from the school's entire staff. Below are other needed collaboration elements related to human capital:y

- A school staffer dedicated to becoming the site's full-time Farmer-Educator as well as a part-time staffer or interns to provide additional farm support
    - **Please note**: TFFJ strongly recommends that the Farmer-Educator be a 12-month staff role and a non-pedagogue.
    - This designation enables them to dedicate all their working time to the farm and its programming components.
    - Farmer-Educators hired under this designation must co-teach curricular day classes with NYCDOE-licensed teachers and be supervised by an NYCDOE-licensed teacher when facilitating TFFJ's afterschool program.
- One campus lead administrator to coordinate the relationship between the campus schools and TFFJ's use of, and funding for, the farm (coordinate program schedules, school resources, student participation in afterschool programs, community engagement in the food distribution and outreach program, and use of the farm by the rest of the school's faculty and classes)
- A dedicated faculty member (paid by each school) to teach the curricular day STEM/Hydroponics module and the afterschool program
- A highly supportive custodian
- A highly supportive cafeteria team and a plan for the farm's produce consumption by the cafeteria
- A parent coordinator, PTA representative, or dedicated administrator/faculty member that will work with TFFJ to communicate with and recruit parents and children, the press, local politicians, community partners, and members of the local community and help raise awareness of, involvement in, and support of the program
- Provision of access to the farm by TFFJ, its staff, and its relevant partners as needed, including media, upon request and in accordance with Department of Education regulations
- Agreement by schools on the campus to collaboratively provide ongoing annual financial support for the farm, particularly the curriculum and professional development work by TFFJ, program supplies and materials and the Farmer-Educator position
- Support for securing TFFJ media releases for students in order to utilize photo and video content featuring students in our Communications materials
- Support for securing permission slips for TFFJ's annual Student Leadership Conference

Meeting and Scheduling Structures

- An open school schedule and enough staff/security support for the farming, food distribution, and outreach program activities taking place during school, after school, or on weekends
- Within co-located schools, a fully functional Building Council where farm-sharing and financial support for the program can be discussed
- Comprehensive, ongoing goal-setting meetings with the school leader, as needed, to discuss both

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the scope and objectives of the program as well as plans for integrating the farm and outreach program into the school
- An ongoing afterschool program that provides a pipeline for student engagement and an effective recruitment plan
- Capacity and willingness to hold regularly scheduled phone and in-person meetings with TFFJ staff and any other relevant partners

Finances

How much does a farm cost to build?

A TFFJ farm's startup cost (for a 1,000- to 1,300-square-foot farm growing up to 10,000 pounds of produce annually) is approximately $255,000 to cover the following components. **Please note: these estimates do not include any costs necessary to renovate the room where the farm will be located as these cannot be predetermined by TFFJ and require the input of licensed contractors.**

Year 1: Farm and Program Startup Expenses	Approximate Cost
Design, procurement, and construction of the hydroponic systems	$45,000
Cost of hydroponic systems and supplies	$100,000
Full-time Farmer-Educator to run the farm and work with teachers. ● Ideally, this is a DOE staff position such as Community Associate; this may also be a licensed pedagogue who is already on staff ● Additional support positions may be needed as class time in the farm increases	$55,000
STEM and afterschool program curriculum development, training, and professional development for school-based staff, program and educational supplies, and materials for program evaluation	$40,000
Food distribution costs, including equipment, needs assessment, and outreach	$10,000
APPROXIMATE TOTAL	**$250,000**

The chart below outlines the ongoing annual costs of the program:

Year 2 and Beyond: Ongoing Annual Farm and Program Expenses	Approximate Cost
STEM and afterschool program curriculum development and training (includes supplies and materials)	$25,000 per school - includes TFFJ staff supervision, training, and program evaluation
Hydroponics consulting	$20,000
Farmer-Educator	$55,000 - can be paid for by one school or shared among co-located schools
Farm/Growing Supplies (consumables and replacement parts)	$15,000

Year 2 and Beyond: Ongoing Annual Farm and Program Expenses	Approximate Cost
Food distribution (replacement equipment and staffing, outreach)	$10,000
APPROXIMATE TOTAL	**$125,000**

Where can we look for startup funding?
Although the answer(s) to this question varies for partners outside of our immediate geography, current TFFJ school partners in New York City have generally funded their farms in one of two ways:

1. NYC Resolution A Capital Funding Request: Through this route, a school independently requests capital funding from their Borough President and/or City Council representative to retrofit the school's dedicated space for the farm. If approved during the city's budgeting process this funding goes to the School Construction Authority (SCA), which then decides the cost and timeline for retrofitting.
   - More information on the Resolution A process is provided by the SCA here.

The approximate timeline for the process that follows a school's Resolution A capital funding request (which can vary widely) is as follows:

- *Year 1 January-February*: School makes a capital request to Borough President and/or City Council rep.
- *Year 1 June-July*: School is notified of request approval or denial following passage of city budget.
- *Year 1 August-December*: The budgeting process continues between city and state.
- *Year 2 January*: Approved request funding goes to the SCA, which then schedules its due diligence on the building and provides an estimate for cost and timeline for the farm retrofit.

2. Private Philanthropy: A school, either independently or in partnership with TFFJ, may either apply for grant funding or ask for an individual donation to support the farm's startup costs. Unless retrofitting the school's dedicated space for the farm requires demolition or other steps that involve checking for lead levels, this route bypasses the SCA because the funding can be instead directed to the Division of School Facilities.

What does TFFJ need from New York City to build a farm at a school?
Capital funding to support the retrofit and preparation of the room that will house the farm, including the purchase of some farm equipment, from Borough Presidents and City Council.
An outside private donor can also fund these expenses.

Other funding (schools' Galaxy budgets, corporate, institutional, individual) will support:
- The design/build, purchase of parts, and installation of the growing systems
- Purchase of:
  - All growing materials
  - Curriculum

- Necessary educational materials
- Supplies and materials for community outreach events

Still interested? Please reach out to TFFJ Deputy Director Gabrielle Mosquera at gmosquera@teensforfoodjustice.org to discuss your campus/prospective site. We look forward to growing with you!