

LAUNCH YOUR **FIELD LAB**  
USING OUR **CURRICULUM**  
AND IMPROVE **NUTRITION**  
WHILE ADVANCING **STEM** STUDY  
IN YOUR CITY

Start an Urban Ranch & Farm Project Field Lab

<https://urbanranchfarm.com/field-lab>

Charter Your Field Lab For Only  
**\$348** / Field Lab / Year, +  
**\$29** / Crew Member / Year



## Field Labs: Multiplying Our Organization's Distinctive DNA Far And Wide



When I first organized The Urban Ranch & Farm Project, it was to share the sustainable ideas and strategies we've been talking about in this book. I set out to describe them as an integrated operating platform that produced wholesome, organic food, captured and filtered rainwater for human consumption, produces energy for the home, and processed waste within the same system. I knew we would need a network to package this knowledge base so that individuals and small teams could take it and implement it like an idea virus in their local communities. I knew that to make it truly distributed, we would need a feedback mechanism built in so that we could gather data from remote teams on their progress, learnings, results, and application of best practices gleaned from other teams from other sites in other places. And so the Field Lab Program was born. It's dedicated to organizing, equipping, deploying, and supporting sustainable microsites, each carrying the distinctive DNA of The Urban Ranch & Farm Project's operational platform, for the purpose of establishing and teaching STEM in local schools. We do this by mobilizing school administrators, teachers, and students to build, operate, and share research from their urban gardens, livestock ranches, power stations, water conservation

centers, waste processing centers, and housing projects using our curriculum and its operational platform.

## What Exactly Is a “Field Lab?”

A Field Lab is a team of high school or college students, supervised by an adult (usually a teacher), representing such a school that has been accepted into The Urban Ranch & Farm Project’s Field Lab Program. In the Field Lab, the team is known as a “Crew,” its students are “Crew Members” and the supervising

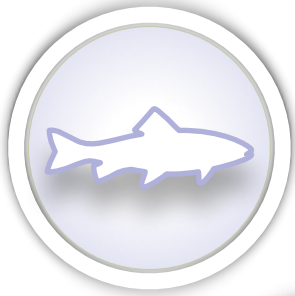
adult serves as its “Crew Leader.”

Each Field Lab exemplifies sustainability and benefits their community by conducting experiments in producing clean energy, organic food, clean water, efficient waste processing, and documenting that science for public consumption and peer review for better consumer education at large. It’s a youth service organization with a science and sustainability focus.

## How is a Field Lab Crew Organized?

Crew Members are everybody who are selected by the Sponsoring Organization and commissioned by The Urban Ranch & Farm Project to build, operate, and share the knowledge they gain from their experiences on their Field Lab. Every Crew Member has access to the URFP Director and other Field Labs operating worldwide through The Urban Ranch & Farm Project. The various roles that make up the ideal, fully functional Field Lab Crew include:





**Aquarist Lead:** This is the TEAM LEAD and caretaker of fish and aquatic fauna; the life of aquatic species within water systems are his/her ultimate responsibility; collaborates with Water Quality Lead. Designs lab experiments to support mission and instructs fellow Crew how to carry them out. Documents this experience in writing and photos to train fellow Crew in this area. (Reports to Crew Leader.)



**Botany Lead:** This is the TEAM LEAD and caretaker of flora; the life of plant species are his/her ultimate responsibility. Designs lab experiments to support this mission and instructs fellow Crew how to carry them out. Documents this experience in writing and photos to train fellow Crew Members how to carry them out. (Reports to Crew Leader.)



**Aviary Lead:** This is the TEAM LEAD and caretaker of bird species; the life of all bird species are his/her ultimate



responsibility. Designs lab experiments to support this mission and instructs fellow Crew how to carry them out. Documents this experience in writing and photos to train fellow Crew in this area. (Reports to Crew Leader.)

**Small Mammals Lead:** This is the TEAM LEAD and caretaker of mammal species (especially meat rabbits) caretaker; the life of all mammalian species are his/her ultimate responsibility. Designs lab experiments to support this mission and instructs fellow Crew how to carry them out. Documents this experience in writing and photos to train fellow Crew in this area. (Reports to Crew Leader.)

**Invertebrates Lead:** This is the TEAM LEAD and caretaker of invertebrate species (e.g., crickets, beetles, bot flies, earthworms, crayfish) caretaker; the life of all invertebrate species (except bees) are his/her ultimate responsibility. Designs lab experiments to support this





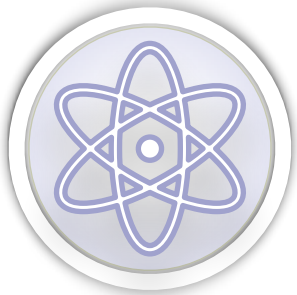


mission and instructs fellow Crew how to carry them out. Documents this experience in writing and photos to train fellow Crew in this area. (Reports to Crew Leader.)

**Apiary Lead:** This is the TEAM LEAD and caretaker of honeybee species; the life of all honeybee species are his/her ultimate responsibility. Designs lab experiments to support this mission and instructs fellow Crew how to carry them out. Documents this experience in writing and photos to train fellow Crew in this area. (Reports to Crew Leader.)



**Water Quality Lead:** This is the TEAM LEAD and caretaker of grey water systems, rain capture and storage, irrigation of aquaculture crops; water purity, filtration, and pH; all things water are his/her ultimate responsibility; works closely with the Aquarist Lead. Designs lab experiments to support this mission and instructs fellow Crew how to carry

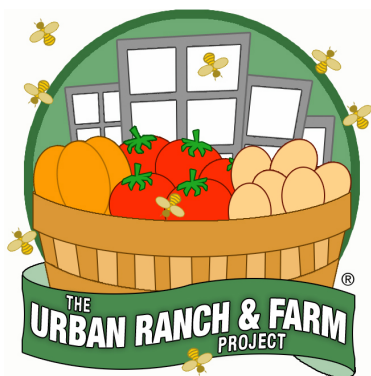


them out. Documents this experience in writing and photos to train fellow Crew in this area. (Reports to Crew Leader.)

**Energy & Power Lead:** TEAM LEAD in the area of managing energy and its production, storage, use, conservation, and processing within the system; all things energy are his/her ultimate responsibility. Designs lab experiments to support this mission and instructs fellow Crew how to carry them out. Documents this experience in writing and photos to train fellow Crew in this area. (Reports to Crew Leader.)



**Waste Management Lead:** TEAM LEAD in the area of caretaking waste from its production, and disposal through its reclamation and processing for upcycling its use within the system; all things waste are his/her ultimate responsibility. Designs lab experiments to support this mission and instructs fellow Crew Members how to carry them



## FIELD LABS

It's the Youth Service Organization that's pays in more ways than one. While you're learning S.T.E.M. skills and meeting important needs in your community, you're learning business skills, too that you can use to be financially independent.

out. Documents this experience in writing and photos to train fellow Crew in this area. (Reports to Crew Leader.)

## What Exactly Is A "Sponsoring Organization?"

Each Field Lab requires a "Sponsoring Organization," or simply "Sponsor" to charter it, fund its annual registration dues (and individual Crew Member dues, and conduct its business details (see "Organizing Your Field Lab Sponsor Committee" below). Sponsors are usually a high school, college, university, or other school. Or maybe it's a city, town, village, or other municipal government; church, synagogue, mosque, or other religious group; company; NGO; nonprofit; anyone who agrees to provide space, logistical apparatus, direction, and/or support.

Sponsors provide another level of adult involvement freeing up the Field Lab Crew by serving on an all-volunteer

committee to address business leadership issues and strategies facing the mission of the Field Lab as it serves its community and the challenges it will encounter there.

## Organizing Your Field Lab Sponsor Committee

The committee functions to conduct all the business of the Field Lab, so the Crew can focus on doing the functional work and research that is their core mission. The committee elects a **Commissioner** and other positions to head up areas such as:

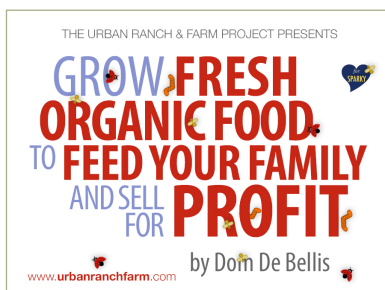
1. **Fundraising Chair** (monetizing work product of the Field Lab, such as produce, biofuels, live bait, sprouted grains, etc.)
2. **Treasurer/Accounting Chair** (overseeing books, accounts of the Field Lab and reporting P&L monthly, taxes, compliance)
3. **Marketing Chair** (promoting the Field Lab through businesses, advertising, online, etc.)
4. **Community Relations Chair** (interfacing with government and local NGOs)

Just **1 in 4** fourth graders from low-income backgrounds **are proficient in math**,  
and just **1 in 6** are **proficient in science**.



**8,000,000**  
STEM JOBS BY 2018

By 2018, eight million STEM jobs will be available in the United States, **but the vast majority of U.S. students will be unprepared to fill them.**



▲ *The Urban Ranch & Farm Project's Field Lab Program uses my book as its STEM curriculum and operations manual.*

## What's The Big Deal?

Many of you are wondering: Dom, is your Field Lab even necessary? Does it fill a need or solve a problem? Or maybe you're wondering if schools are teaching them, so don't we have a handle on these subjects already? I mean, don't we teach home economics in middle school? Don't we cover the material in shop class?

Believe me, I'm old enough to remember taking those classes. I wish I could tell you we're teaching this lost knowledge base, but that's not what I'm hearing when I talk with parents, educators, and

my fellow Scouters around the United States and Canada. In fact, they report schools aren't teaching hands-on plant cultivation rooted in botany and biology, let alone the culture of invertebrate and vertebrate species under controlled conditions grounded in animal husbandry. Our kids aren't learning how to use that knowledge to produce their own food supply, let alone their own energy and economy by closing the loops in their supply chain.

I characterize this knowledge base as one lost to a generation that has passed —and I'm not even certain which that

may have been. All I can say is that much of what I write about—with the possible exception of distilling biofuels, anaerobic biodigesters, and electricity production—are based on knowledge our foremothers and fathers possessed not so long ago. The only reason we’ve lost touch with these skills isn’t that we’re so far removed from this knowledge; it’s that we have failed to

***practice this knowledge***, and to then ***continually document our practices*** so that we might continue to improve and perfect those skills. Below is a process which, I suggest, systematically accomplishes these objectives while yielding a continual improvement of any given Field Lab according to our Key Metrics and the ultimate profitability of its activities for all stakeholders.

## MONTHLY OPERATIONAL TEMPO OF A TYPICAL FIELD LAB

# CONTINUAL LEARNING



### OPERATE

Work the grow systems and sell CSA subscriptions, nursery wholesale accounts, institutional accounts; meanwhile, sign waste disposal accounts to supply us with biofuel, compost, and livestock inputs



### DOCUMENT

Collect data on key metrics, lab reports on experiments at all phases in real time, photo/video evidence for social proof, marketing, community relations, ecotourism, and other activities



### REPORT

Report documentation to URFP Director for compilation, publication, and sharing



### PUBLISH & SHARE

Reported data shared throughout URFP Field Lab workgroup globally with other Crews



# Strategies For Sustainable Communities

## *How FIELD LABS Contribute To Thriving Cities*

### Better Information

Teaching operators to increase yields, recruit and train teams, access markets, and develop sustainable business models

### Better Inputs

Organic seed, fertilizer, pest control, and environment improves nutritional purity and potency; increases value to customers and workers' quality of life

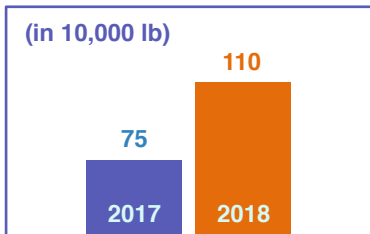
### Better Tools

Takes drudgery out of planting, weeding, irrigating, and harvesting; ensures year-round production; implements automation, monitoring, and controls for efficiency and quality assurance

### Shorter Distance to Market

Cultivates markets within reach for lower carbon footprint, dramatically lower operating costs, competitive advantage, and higher margins

## HOW WE'LL MEASURE THE SUCCESS OF OUR FIELD LABS



### FOOD SECURITY

Gross weight of food produced by URFP FIELD LABS within a host city during year



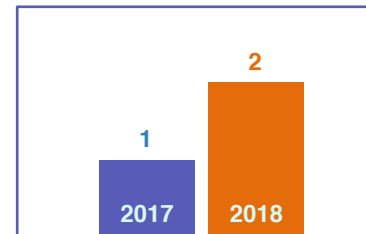
### SCHOOL MEALS PLATED

No. (K-12) school meals provisioned by URFP FIELD LABS within a host city during year



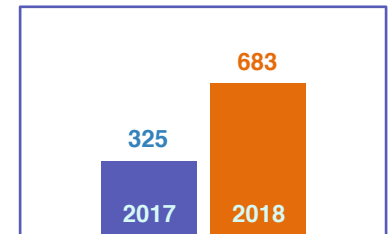
### INSTITUTIONAL MEALS PLATED

No. (non-K-12) institutional (colleges, hospitals, prisons, hotels, restaurants, etc.) meals provisioned by URFP FIELD LABS this year



### FL CHARTERED; FL PROFITABLE

Number of new FL chartered this year; number that reached profitability this year



### CSAs CREATED

No. CSA subscriptions each FL added (lost) this year

*These are our METRICS*

The Field Lab Program harness the energies and talents of individuals working in local teams to achieve sustainable, stronger cities through the URFP with the objective of spreading this knowledge far and wide, so that people everywhere would benefit from growing fresh organic food to feed their families, processing their wastes into green energy, and functioning more sustainably while practicing more self-efficiently as individuals and in community. As each Field Lab Crew carries out that mission, it's teaching others throughout the world with the support of other Field Labs. While leveraging the global knowledge base, the URFP stewards the experiences and research findings of individual Field Labs and educating, equipping, and supporting each crew. And, of course, we all benefit.

## Field Lab Dues

**\$348 / Field Lab / Year**

**\$29 / Crew Member / Year**

We know we're going to regret these price points and have to raise them someday; right now we'd like to build a network of Field Labs and that means exceptional pricing for the early adopter. Dues are how we maintain support tools for you, publish your research, and keep our curriculum updated, not just for your Field Lab, but throughout our program.

You'll pay less than \$1/day to charter the Field Lab annually and just \$0.08/day—just eight cents per day for each Crew Member. Hopefully, that won't break your budget.

Register individual Crew Members at  
**<https://www.urbanranchfarm.com/apply>**

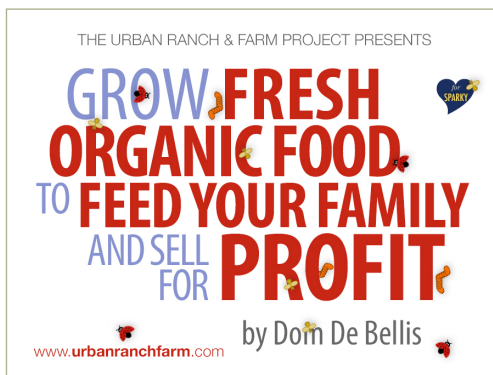
Next year, we'll bill you to renew the Charter and your Crew Member dues. We appreciate you keeping your account current.



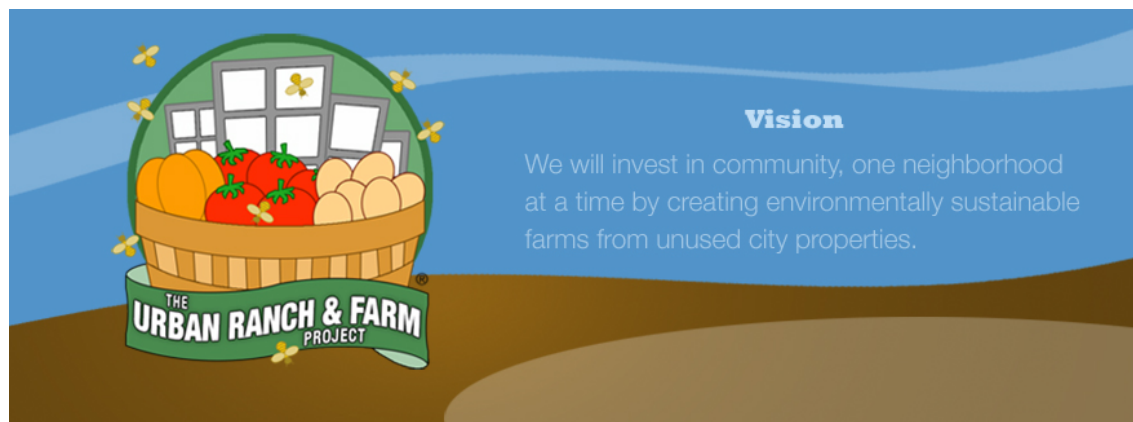
▲ *The idea for Field Labs came early on when I discussed The Urban Ranch & Farm Project and The Eden Homestead with pastors for applications specific to church congregations and their particular needs, given mercy service projects they devoted considerable resources to sustain in their annual budgets. I figured we could provide great value there.*

If you're a parent of a child today, you may be overwhelmed with concern for your student's education and their options for the future. And as a Scout leader and minister, believe me, I sympathize. I challenge you and your student to take 6 months and join a Field Lab in your area or simply commit yourselves to learn what I teach in this book and apply it to growing your own food, processing your own waste around the house, catching and storing your rainwater—just do what my book says, follow my step-by-step procedures—and if you do these things, get in touch with me through the Facebook group and tell me which is giving your student a better education—their schoolwork or our Field Lab and my book? *Which is equipping them with the tools they need to live a more profitable future? . . .* I rest my case.





▲ The Urban Ranch & Farm Project's Field Lab Program uses my book as its STEM curriculum and operations manual.



**Vision**  
We will invest in community, one neighborhood at a time by creating environmentally sustainable farms from unused city properties.

I am determined to plant Field Labs in every city on the planet, but I can't do it alone. If you want to collaborate or operate your own URFP Field Lab, *you need to get in touch now*—because motivated people can do amazing things together. Please visit our website to get involved.

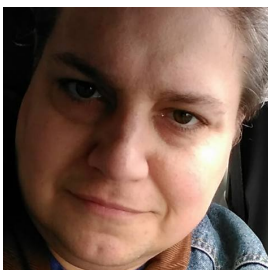
Dom De Bellis

<https://urbanranchfarm.com/apply>

“

*You never change things by fighting  
the existing reality. To change  
something, build a new model that  
makes the existing model obsolete.*

—Buckminster Fuller



## About the Organizer

Dom De Bellis is the organizer of The Urban Ranch & Farm Project and principal of Dom De Bellis International, the longtime entrepreneur of more than 20 years having operated businesses in real estate investing, marketing communication, digital media production, home improvement, and online services. Dom received leadership training in the Boy Scouts of America, where he earned the Eagle Scout award; and in the U.S. Navy, where he was awarded numerous honors and received an honorable discharge. These days, he serves as an adult leader with a local Boy Scout Troop, teaches people with disabilities how to launch and operate their own businesses, and advocates for sustainable waste processing, organic food production, and green energy development. When he's not ministering the Gospel of Jesus or collecting traumatic brain injuries, Dom is available to speak to your audience about making cities stronger, more vibrant, and more sustainable; email him at [dom@domdebellis.com](mailto:dom@domdebellis.com) or visit <https://domdebellis.com/speaking>.