microTank

Official Competition Workbook:

The Student Guide to Building a Microgreen Empire

Presented by

RAYN GROWING SYSTEMS

Academic Year 2025-2026

NATIONAL FFA
ENDORSED ACTIVITY

Table of Contents

Introduction to the microTank Competition

What is microTank?

Welcome to the microTank Competition — an entrepreneurial challenge where FFA members step into the role of business founders. Instead of just learning about agriculture, you'll explore how to turn an idea into a business and practice the same steps real entrepreneurs use to launch start-ups.

Unlike traditional contests, you won't be asked to grow crops during the first stage. Instead, you'll focus on the business accelerator process:

- Discover an opportunity in the microgreen market
- Define your customers and competitors
- Build a Business Model Canvas
- Design a Pitch Deck (your investor presentation)
- Share your vision with judges, just like a real entrepreneur seeking funding

Why Microgreens?

Microgreens are the perfect starting point for a student-led business:

- 🌱 Fast growth (7–14 days from seed to harvest)
- 💰 High value (average retail price $2.75/oz, wholesale $1.75/oz)
- 🏫 Accessible (low startup cost, can grow in small spaces)
- 📈 Rising demand (chefs, markets, and health-conscious consumers love them)
- 🏋️Healthy and delicious (Microgreens are packed with nutrients and spice things up)

Your Mission

Attached to this packet is a case study of a fictional microgreen business called "Tinyleaf Co". You'll use the Tinyleaf Co case study as a guide while developing your own unique business idea. By the end, your team will have a:

- Business Model Canvas – your plan on one page
- Pitch Deck – a 10-slide investor presentation
- Team Executive Summary – who you are and why you're competing

Competition Stages

01

Sign-Up & Kickoff

📅 **Oct 29 – Nov 1, 2025**

- Visit the RAYN booth #839 at FFA Nationals or sign up online.
- Each team receives this microTank Workbook and access to templates.
- Free Zestigreen microgreen kits for sign-up (while supplies last!).

02

Orientation & Webinar

📅 **Nov 24, 2025**

- Live Q&A webinar: "Starting Your Business."
- Learn competition rules, deadlines, and how to use the Business Model Canvas.
- Last chance for new teams to sign up.

03

Business Accelerator Phase

📅 **Nov 2025 – Jan 2026**

- Teams complete the Student Workbook, moving through modules
- Teams prepare their Business Model Canvas, Pitch Deck, and Team Executive Summary.
- Use the Tinyleaf case study as a guide while developing your own business.

04

Semi-Final Submissions

📅 **Jan 23, 2026**

Teams submit:

- Business Model Canvas
- Pitch Deck
- Executive Summary (1-page team intro)

05

Semi-Final Judging & Awards

📅 **Jan 28, 2026**

- Judges review submissions based on: Presentation, Creativity, Discovery, Business Model, and Teamwork.
- Top teams announced.
- Semi-final winners each receive a MicroRack system to launch their real business.

06

microTank Finals

📅 **Apr 2, 2026**

- Finalist teams present live in front of judges and peers.
- One team will be the microTank Champion.
- The Champion receives:
    - Mentorship sessions with a CEO
    - A trip to a real manufacturing facility
    - An invitation to FFA Nationals 2026 as a microTank ambassador and as guest judge for microTank 2026/2027

Timeline and Key Dates

Oct 29 – Nov 1, 2025

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Contact Information

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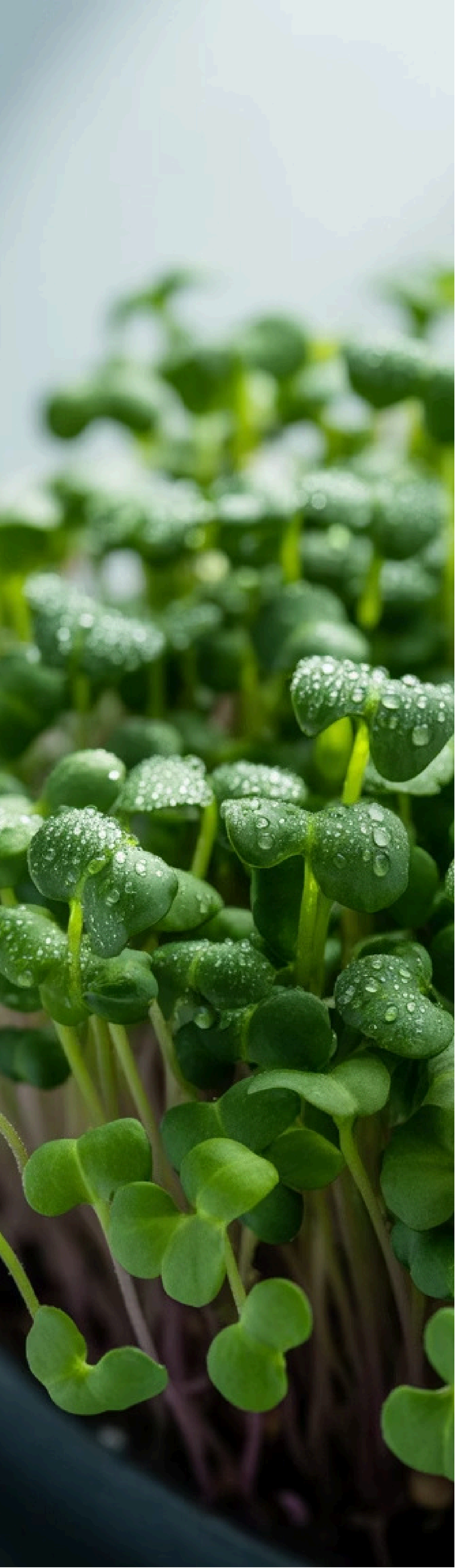


microTank Accelerator

Case Study

Follow along with **Tinyleaf** (example case study) as you build your own microgreen business

tinyleaf

A made up company since 2025

Module 1: Discover the Opportunity

Every business begins by identifying an opportunity—a chance to meet a need, solve a problem, or improve people's lives. In this case, microgreens present a great opportunity because they grow quickly, require minimal space, and sell for a good price.

Many people believe that to be successful, you need investors and capital. That is not entirely accurate. To be successful, you need a product or idea built around a demand.

Example:

Imagine you have the best beef cows in the world. Now imagine the world was made up of vegans. Guess what? In general, the beef would be worth very little money, if at all. Not only would you not have buyers for your meat, but you'd have spoiled beef and have to pay to dispose of it.

It is your goal as an entrepreneur to make sure you have a market demand (people who want cows). You must also make sure there is enough demand and not enough supply (existing competition). It gets complicated, and there are ways to make a competitive market lean in your favor. These are concepts you'll discover through market research.

👉 **Your job:** Combine those reasons into a short "opportunity statement." Think of it like a sentence that explains why starting this business makes sense.

Tinyleaf Example:

Why microgreens?

- Fast growing (7–14 days)
- High price ($2.75/oz retail average)
- Small space, low cost ($60 per 20-tray harvest)

Your Turn:

Can you write a 1-sentence "opportunity statement" for your business?

Module 2: Define Your Customers

A customer persona is like a "profile" of your ideal buyer. Businesses use personas to understand who they are selling to. For example, "Chef Maria" needs fresh greens every week for her restaurant and is willing to pay a fair wholesale price.

👉 **Your job:** Create your own persona by filling in details about who your customer is, what they care about, and what they're willing to pay.

Tinyleaf Example:

Customer Persona: Chef Maria

- Age: 34
- Runs a farm-to-table restaurant
- Needs: weekly reliable supply, unique colors/flavors
- Will pay: $1.75/oz wholesale

Your Turn:

Customer Persona:

- Name: _________
- Age: _________
- Needs: _______________________
- Will pay: _________/oz

Module 3: Build Your Business Model Canvas (BMC)

The **Business Model Canvas** is a one-page tool that maps out all the parts of a business: what you're selling, who your customers are, how you'll reach them, how you'll make money, and what resources you'll need. It's a "blueprint" for your idea.

👉 **Your job:** Fill in the simplified canvas with your products, customers, and costs. Later, you'll expand these into a full BMC for building out your pitch deck.

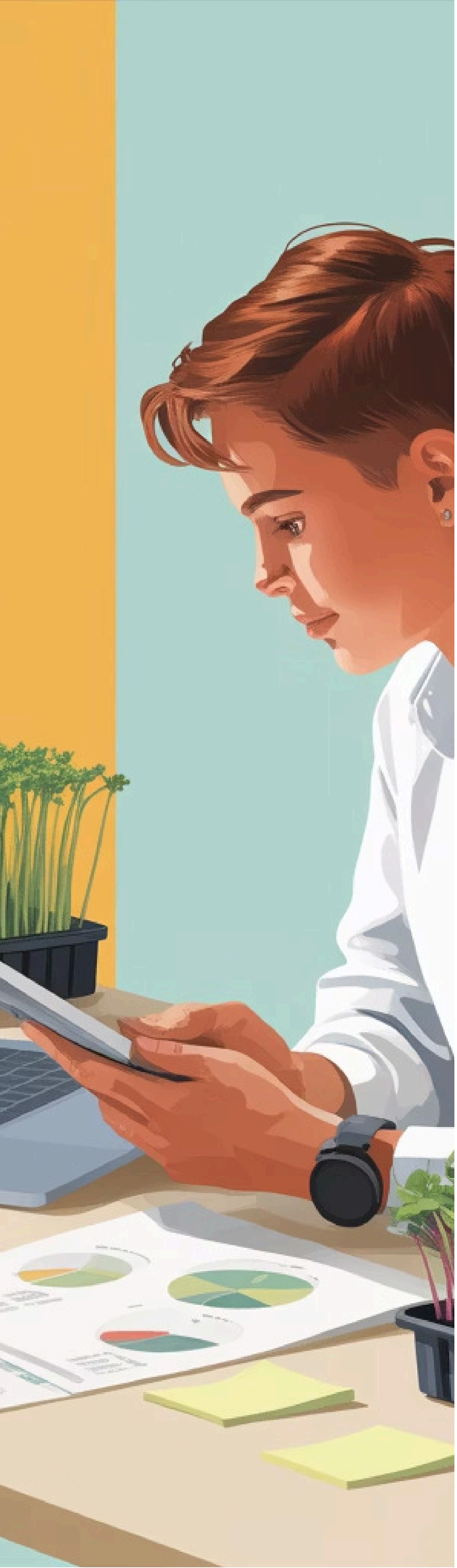
Tinyleaf Example (Highlights):

Products Pea shoots, radish, sunflower	**Customers** Chefs, farmers market shoppers
Value Proposition "Same-day harvest, student-grown, compostable packaging"	**Channels** Direct delivery, farmers market booth
Revenue Streams $2.75 retail / $1.75 wholesale	**Costs** $60/harvest (seeds + growing media across 20 trays)
Key Activities Planting, harvesting, packaging, delivery	**Key Partners** Local farmers market, packaging supplier

Your Turn (simplified canvas):

- Products: ________________
- Customers: ________________
- Value Proposition: ________________
- Channels: ________________
- Revenue Streams: ________________
- Costs: ________________
- Key Activities: ________________
- Key Partners: ________________

In order to encourage creativity, we've limited our example to high-level concepts of the BMC. It is your job after going through this workbook to expand on these high-level concepts in your pitch deck and in your final BMC.



Module 4: Research & Competitive Advantage

Great entrepreneurs research the market before launching a business. That means checking what competitors are already doing, how much they charge, and what customers like. Your competitive advantage is the thing that makes you stand out—maybe lower prices, better freshness, or unique varieties.

👉 **Your job:** Identify one competitor, their price, and what makes your business different.

Tinyleaf Example:

- **Competitor:** Grocery store selling clamshells $3.50/oz
- **Tinyleaf Strategy:** Price at $3.00/oz retail to win on value, freshness, and story.

Your Turn:

- Competitor(s): ____________________
- Their price: ________/oz
- Your Unique Edge: ____________________

Module 5: Finance Basics

Money matters! To know if your idea works, you need to understand costs, revenue, profit, and break-even.

Costs

How much you spend (like seeds and trays)

Revenue

How much money you bring in from sales

Profit

Revenue – costs (what you keep)

Break-even

The point where sales cover your costs (no loss, no profit yet)

👉 **Your job:** Calculate costs, revenue, profit, and break-even for your idea. Don't worry—it's simple math, and graphs can help you visualize it!

Tinyleaf Example:

- Yield per tray: 10 oz
- 20 trays = 200 oz per harvest
- Costs: $60/harvest (supplies)
- Revenue:
  - Retail ($2.75/oz) → $550
  - Wholesale ($1.75/oz) → $350
- Profit:
  - Retail → $490/harvest
  - Wholesale → $290/harvest
- Break-even: 22 oz (≈ 2 trays)

Your Turn:

- Yield per tray: _________ oz
- Total yield (trays × oz): _________ oz
- Supply cost per harvest: $_________
- Revenue: _________ (price × yield)
- Profit: _________ (revenue – cost)
- Break-even point: _________ trays

Don't be afraid to use graphs to show your projections!

Module 6: Brand & Marketing

Your brand is how people recognize your business. It's more than just a logo—it's your name, style, colors, and the story you tell. Marketing is how you get your business in front of customers, whether through Instagram, flyers, or farmers' market booths.

👉 **Your job:** Pick a business name, tagline (a short phrase that sums up your brand), sketch a logo, and choose at least one way to market your business.

Tinyleaf Example:

- **Name:** Tinyleaf Microgreens
- **Tagline:** "Small leaves. Big flavor."
- **Logo:** Green sprout in circle

tinyleaf
A made up company since 2025

- **Marketing Method(s):** Instagram posts, farmers market booth, chef samples

Your Turn:

- Business Name: ______________________
- Tagline: ______________________
- Logo sketch: (draw here)

- Marketing Method(s): ______________________

Module 7: The Pitch

A pitch is a short presentation where you explain your business idea to an audience (like investors, judges, or customers). It's your chance to grab attention, explain the problem you're solving, and show why your business is worth supporting. A good pitch covers:

1 **Hook** Grab attention	2 **Problem** What's missing	3 **Solution** Your business idea
4 **Market** Who will buy it	5 **Financials** Basic numbers	6 **The Ask** What support you need

👉 **Your job:** Write and practice your own pitch. You'll use your Business Model Canvas and all your earlier work to make a 10-slide pitch deck.

Tinyleaf Example (3–5 min pitch outline):

- **Hook:** "Did you know chefs pay $30–40/lb for tiny greens?"
- **Problem:** "In our town, there's no reliable local source."
- **Solution:** "Tinyleaf provides same-day harvested microgreens, grown sustainably by students."
- **Market:** "5 local restaurants + farmers market buyers."
- **Financials:** "$490 profit per harvest at retail prices."
- **The Ask:** "We need $2,000 to fund packaging, seeds, and market fees."

Your Turn:

- Hook: ____
- Problem: ______________________________________
- Solution: ______________________________________
- Market: _______________________________________
- Financials: _____________________________________
- The Ask: _______________________________________

Case Study Conclusion & Deliverables

Reminder:

You don't need to grow microgreens to compete. You just need to think like an entrepreneur and pitch your best idea!

Now, take everything you've done and create your BMC. Once you've created your BMC, proceed to making the 10-slide pitch deck. Remember: Be creative and have fun. You are encouraged to reach out to RAYN staff directly through **info@RAYN.ag**. Follow us on social media, where you can tag and share your progress (@RAYNGrowingSystems and @Ed.Rack).

The Business Model Canvas (BMC)

The Business Model Canvas is a great way to map out a business idea on one page. It helps you see all the parts of your business on one page. It includes:

Block	What It Means
1. Customer Segments	Who are your customers? Who will buy from you?
2. Value Proposition	Why will people buy your product? What makes it special or different?
3. Channels	How will you reach your customers? Where will they find you?
4. Customer Relationships	How will you connect and build loyalty with customers?
5. Revenue Streams	How will you make money? What are your prices?
6. Key Resources	What do you need to run your business?
7. Key Activities	What do you have to do every week?
8. Key Partners	Who helps you make it work?
9. Cost Structure	What are your main costs?

Why does it matter?

The Business Model Canvas helps you:

- Test your ideas before spending money
- Spot weaknesses early
- Explain your business clearly when pitching
- See how all the pieces connect — from customers to profits

> 💬 **Pro tip:** Don't overthink it. The first version of your canvas doesn't have to be perfect. Think of it as your "first draft business plan" — you can change it as you learn more.

Resources:

Canva BMC Template - Editable template

BMC Guide - Learn more

Pitch Deck

A pitch deck is a short presentation (usually 10 slides) that tells the story of your business idea. It's what entrepreneurs use to get investors or customers excited about what they're building.

Think of it like a movie trailer for your business — quick, engaging, and clear.

You'll use your Business Model Canvas to build each slide. Each slide focuses on a key part of your business. Guy Kawasaki's **"The Only 10 - Slides You Need in a Pitch"** is a great introduction to the world of pitching. Use that as your template directly on Canva or build your own from scratch. Make sure to include an appendix. You can add as many extra slides as you like in the appendix. This provides a great opportunity to address questions you anticipate potential investors may ask during a presentation.

Here is a slide-by-slide break down:

Slide	Title	What You Should Show
1	Title Slide	Your business name, logo, tagline, and possibly your team's names (exec summary can hold the team info).
2	The Problem	What problem or need are you solving? Why does it matter?
3	The Solution	How does your product or service fix that problem?
4	Market Opportunity	Who will buy your product, and how big is your potential market?
5	Product Overview	Show what you're selling — pictures, product names, or how it works.
6	Business Model	How will you make money? Prices, costs, and profit per tray.
7	Marketing & Growth Strategy	How will you reach customers and grow over time?
8	Competition & Edge	Who else sells something similar, and what makes you different?
9	Financial Snapshot	Key numbers (revenue, costs, profits, break-even point). Use a simple chart or graph.
10	The Ask	What do you need to take your business to the next level (funding, mentorship, resources)?
XX	Appendix	Here you should place answers to anticipated questions.

Tips for Building a Great Deck

- **Keep it simple:** One main idea per slide
- **Use visuals:** Pictures, icons, and short phrases instead of paragraphs
- **Be confident:** Practice your speaking points — don't read off the slides
- **Tell a story:** Start with a problem and end with your big vision
- **Show your numbers:** Even basic cost and profit graphs impress judges

Team Executive Summary

In short, the Team Executive Summary is a one page introduction of the team and the business. It helps judges, teachers, and partners get to know who you are, what you're building, and why you care about it. It's an "about us" page.

Section	What to Write
Team Introduction	List your team members' names, grade levels, and school.
Favorite Courses or Interests	Share what each person enjoys or what they're studying.
Your Business Idea	Write a short 2–3 sentence summary of your idea. What do you sell, and who buys it?
Why You Started	Explain your motivation — what inspired your idea?
Team Roles	Describe what each member does in the business.
Vision or Future Goal	Share where you'd like your business to go next.

Submission & Appendices

Submission Steps

01

Create a shared folder

Create a shared Google Drive or OneDrive folder.

02

Upload your deliverables

Upload:

- **microTank Business Model Canvas** (Format: Scanned copy, quality photo, or link to a web version)
- **Pitch Deck** (Format: Slides, PPT, or link to a web version)
- **Team Executive Summary** (Format: inside the slide deck appendix, Word/Google Doc link/copy)

03

Submit to RAYN

Submit the folder link to **info@RAYN.ag**. Be sure to include up-to-date contact information and check your spam folder to ensure @RAYN.ag is not flagged. If we can't reach you, you won't be considered!

Appendix A – Rules

1. Open to middle + high school FFA members
2. Teams of 1–4
3. Deliverables:
   a. Business Model Canvas
   b. Pitch Deck
   c. Team Executive Summary
4. Social Media Posting: Use hashtag #microTankFFA and tag: @RAYNgrowingsystems
5. Legal - See sign up

Appendix B – Rubric

Category	Excellent	Proficient	Developing	Points
Presentation (30 pts)	26–30 pts: Pitch is clear, confident, and engaging. Visuals are polished and strongly support the message. Team communicates smoothly and answers questions effectively.	20–25 pts: Pitch is mostly clear and confident. Visuals are professional but may lack some polish. Team shows preparation and handles questions adequately.	10–19 pts: Pitch is uneven or unclear at times. Visuals are basic or distracting. Confidence and delivery need improvement.	___ /30
Creativity (20 pts)	17–20 pts: Brand identity is memorable and well thought out. Idea shows strong originality and innovative problem-solving. Business stands out from competitors.	13–16 pts: Brand identity is solid but not distinctive. Idea shows some originality and creative thinking.	7–12 pts: Limited originality; idea feels generic. Branding or problem-solving is underdeveloped.	___ /20
Discovery (20 pts)	17–20 pts: Demonstrates thorough research on customers, competitors, and pricing. Assumptions are realistic and supported with evidence.	13–16 pts: Some research is evident; assumptions are generally reasonable, though a few lack support.	7–12 pts: Minimal or vague research. Assumptions are unrealistic or not clearly supported.	___ /20
Total: ___ /70 points				

Thank you for participating 🎉

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