

# Case 09: JUST, Inc.: Clean Meat and the Future of Protein Alternatives

## Teaching Note

### Today's Agenda

1. Case Discussion: Collins-Carey et al. (2020), *JUST, Inc.: Clean Meat and the Future of Protein Alternatives* — led by **Team E**.
2. Focus on the strategic choice among four paths:
  - **Enter clean meat** (cultured meat)
  - **Enter plant-based meat**
  - **Enter edible insects**
  - **Double down on plant-based alternatives** (status quo/core)
3. Connect to this week's concepts: **industry life cycles, dominant design, go-to-market, and mission-strategy fit**.

### Key Terms: Alternative Protein Landscape

- **Clean (Cultured) Meat** – Animal cells grown in bioreactors to form edible muscle tissue.
- **Plant-Based Meat** – Texture/flavor engineered from plant proteins (e.g., soy, pea, wheat).
- **Plant-Based Alternatives** – Non-meat analogs (e.g., JUST Egg, mayo, dressings).
- **Edible Insects** – Protein from insects (e.g., crickets) whole or as ingredients (flour).
- **Dominant Design** – A prevailing product architecture that shapes competition.
- **First-Mover Advantage** – Benefits from early market entry before standards/leaders emerge.

### Role Play: You Are Josh Tetrick (CEO)

- Mission-driven founder with prior wins (JUST Egg) and a **controversial history** that raises reputational/regulatory risk.
- **Decision (2017)**: Where should JUST invest next to lead the protein transition?
- Constraints: capital intensity (esp. clean meat), regulatory uncertainty, consumer acceptance, and competition.

From the CEO seat: What path best advances **impact** + **viability** while leveraging JUST's **algorithm/R&D** and brand?

## JUST at a Glance (Timeline)

Year	Milestone	Why It Matters
2011–2016	Founding (as Hampton Creek), plant-based R&D & product launches	Built brand + discovery algorithm
2017	Rebrand to <b>JUST, Inc.</b> ; consider new protein categories	Strategic fork in the road
2018–2019	JUST Egg scales; Minnesota facility enables 24/7 mung-protein extraction	Demonstrates ops scaling in core
2018–2020	Accel in clean meat R&D across industry (e.g., Memphis Meats, Aleph)	Competitive race; rising capital needs

## Learning Objectives (for Students)

- Evaluate **market attractiveness** across clean meat, plant-based meat, insects, and core plant-based alternatives.
- Assess **fit** with JUST's resources/capabilities and **mission alignment**.
- Anticipate **go-to-market** hurdles: regulation, cost curves, consumer adoption, supply chains.

## Market Snapshots

### Clean Meat

- **Pros:** Potential parity on taste/texture; large long-run TAM; ethical/land/water upside.
- **Cons:** High capex + R&D risk; regulation & labeling; consumer “lab-grown” skepticism; energy intensity.

### Plant-Based Meat

- **Pros:** Momentum + near-term growth; access to flexitarians; leverages JUST's discovery platform.
- **Cons:** Strong incumbents (Beyond, Impossible); taste/texture arms race; late-mover risks.

### Plant-Based Alternatives (Core)

- **Pros:** Brand equity; proven ops scaling (JUST Egg); lower regulatory friction.
- **Cons:** Finite substitution space; supply chain build-outs for novel inputs; slower path to category leadership.

## Edible Insects

- **Pros:** Efficient feed conversion; niche demand growth; ingredient versatility.
- **Cons:** Cultural barriers in U.S.; fragmented field; far from JUST's capabilities/brand.

## Industry Life Cycle & Design

- **Where are categories on the curve?**
  - Clean meat: **emergent** / **pre-dominant design**
  - Plant-based meat: **growth** / **design converging**
  - Plant-based alternatives: **growth** / **fragmentation by application**
  - Insects: **emergent** / **niche**

If **dominant design** emerges in clean meat in 3–5 years, does JUST want to shape it or adapt to it?

## The Strategic Choice

### Options:

1. **Enter Clean Meat** (pursue first-mover potential)
2. **Enter Plant-Based Meat** (fast-follower vs. incumbents)
3. **Enter Edible Insects** (ingredient play, niche)
4. **Double Down on Core** (expand plant-based alternatives portfolio)

## Connect These Options with Legal & Marketing Hurdles

- **Regulatory pathways** → cultured vs. plant-based products
- **Food safety & liability** → GMP, traceability, recalls
- **Contracts & market access** → brokers, co-manufacturing, slotting
- **Cottage vs. Commercial** → why JUST can't be "cottage"
- **Pricing & costs** → thin margins, scaling choices
- **Brand & positioning** → dominant design and focus

Goal: Use Lecture 9 tools to evaluate **which path** (clean meat, plant-based meat, core plant-based, insects) best fits JUST's mission, means, and market.

## Regulatory Pathways (FDA/USDA)

### Cultured meat (clean meat)

- Pre-market consultations, facility registration, inspections
- Joint FDA–USDA oversight (cells → FDA; harvest/processing → USDA)

- Labeling and nomenclature uncertainty

### Plant-based

- FDA food rules (ingredients, allergens, GRAS, labeling)
- Claims (protein quality, sustainability) need substantiation

### Implication for JUST

- **Clean meat:** longer, costlier path; high policy risk
- **Plant-based:** clearer path; faster channel expansion

**Prompt:** If the **dominant design** in cultured meat is 3–5 years out, does JUST want to **shape** it or **follow** it?

### Food Safety, GMP, and Liability

- **GMP** is non-negotiable for national retail
- **Traceability:** one-step forward/back, batch IDs, recall readiness
- **Risk:** contamination, allergen control, supply chain failures

### JUST Application

- Clean meat: aseptic bioprocessing, media control, QA/QC uptick
- Plant-based: co-manufacturing + supplier audits; simpler—but still strict

**Quick Check:** What **documentation** must JUST have in place before pitching a national QSR pilot?

### Contracts & Channel Access

- **Brokers/Distributors:** unlock retail buyers but take margin
- **Slotting/Promotion:** trade spend planning matters
- **Co-packing:** capacity, MOQs, lead times, quality specs, IP/NDAs
- **Force majeure:** supply shocks, logistics, recalls

### JUST Application

- Core/plant-based: leverage co-packers to scale JUST Egg-adjacent lines
- Clean meat: likely JV/strategics for pilot plants + foodservice entry

**Exercise:** Draft 3 must-have **contract clauses** JUST should demand from a co-packer for a new plant-based SKU.

### Cottage Food vs. Commercial Reality

- Cottage laws vs. wholesale/interstate
- National brands require **commercial facilities** + audits (GMP/HACCP)

### JUST Application

- All four paths require commercial compliance; **no cottage shortcuts**
- Clean meat adds **bioprocess** validation and new SOPs

## Market Access & Competition

### Barriers

- Shelf space (category captaincy by incumbents)
- Velocity expectations, cold chain, slotting fees
- Consumer acceptance (taste, texture, name)

### Playbooks

- **Plant-based:** fast-follower differentiation (protein source, nutrition, price)
- **Clean meat:** staged foodservice launches; transparent messaging
- **Core:** deepen penetration (foodservice + retail), capacity expansion

**Think:** What is JUST's “**Haribo focus**”? (One killer SKU or platform where it can dominate.)

## Costs, Pricing, and Thin Margins

- Rising inputs, labor, freight, trade spend → squeeze gross margin
- Clean meat: **Very high capex/opex** until media yield improves
- Plant-based/core: scale lowers COGS; ingredient hedging helps

### Decision Lens

- Can JUST hit a **price-to-value** that drives velocity without burning runway?

## Compare the Paths

Path	Strategic Fit	Capital Need	Regulatory Risk	Consumer Adoption	Speed to Revenue
Clean Meat	High (mission) / Medium (capabilities)	<b>Very High</b>	<b>High</b>	Medium (omnivores)	Low
Plant-Based Meat	High	High	Medium	Medium-High	Medium
Core	<b>Very High</b>	Medium	Low	High (existing)	<b>High</b>
Alternatives Insects	Low	Medium	Medium	Low-Medium (U.S.)	Low

## Finance & Ops Implications

- **Clean Meat:** Bioreactors, cell lines, scaffolding, media costs, QA; multi-year burn to unit economics.
- **Plant-Based Meat:** Ingredient supply (pea/soy/wheat proteins), extrusion tech, flavor science.
- **Core:** Capacity expansions, channel partnerships (retail/foodservice), brand building.
- **Insects:** Farming or sourcing, processing to ingredients, B2B demand development.

## Class Exercise (Investor Lens)

You're an investor hearing JUST's pitch for **one** path.

1. What **traction** or technical milestones must you see?
2. What are the **leading risks** and how are they mitigated?
3. What **terms/structure** (e.g., staged capital, milestones) would you require?

## Discussion Questions

1. Which path best aligns with JUST's **mission–market–means** triangle?
2. How should prior **reputational turbulence** shape entry timing/communications?
3. Where can JUST's **algorithmic discovery** create durable edge?
4. What **sequencing** option (now vs. later) best balances risk and upside?
5. If entering clean meat, what **partnerships** (bioprocess, regulatory, distribution) are pivotal?

## Scorecard Exercise

Option	Capability Fit (1–5)	Market Attractiveness (1–5)	Risk (1–5, low=5)	Mission Alignment (1–5)	Total
Clean Meat	_____	_____	_____	_____	_____
Plant-Based	_____	_____	_____	_____	_____
Meat	_____	_____	_____	_____	_____
Core	_____	_____	_____	_____	_____
Alternatives	_____	_____	_____	_____	_____
Insects	_____	_____	_____	_____	_____

Write **3–4 sentences** defending your recommendation and proposed next steps.

## Go-to-Market: If Clean Meat Wins

- **Milestones:** cost curve (media ↓, yield ↑), sensory parity, regulatory pathway, pilot plant.
- **Allies:** academic labs, bioprocess OEMs, strategic CPG/meat partners, advocacy orgs.
- **GTMP:** limited-scope launches (foodservice), transparent messaging, data on safety & sustainability.

## Go-to-Market: If Plant-Based Meat Wins

- **Differentiate:** novel proteins via discovery platform; superior nutrition or price.

- **Ops:** co-manu vs. owned lines; secure inputs; flavor/texture IP.
- **Channels:** QSR pilots → retail; chef partnerships; retailer category captaincy.

## Epilogue (for Debrief)

- JUST ultimately **pursues clean meat** while scaling JUST Egg; costs decline but commercialization remains staged; competitive field intensifies.
- Debrief: Was this **optimal sequencing** given capabilities, risk, and the market window? What would you do in 2026?

## Key Takeaways

- **Fit before flash:** Match path to capabilities, mission, and runway.
- **Design & timing matter:** Pre-dominant-design races reward crisp milestones and alliances.
- **De-risk in stages:** Sequence bets; protect the core while advancing the frontier.
- **Narrative discipline:** Reg- and reputation-aware communications are strategic assets.