

Assignment Sheet 4: BAN-BANANAS

SCIENTIFIC BRIEFING DOCUMENT

FROM: BAN-Bananas (Biodiversity Advocacy Network - Bananas Are Not Natural)

TO: Research Associates & Science Communicators

RE: Public Education Initiative

OUR ORGANIZATION

BAN-Bananas is an alliance of botanists, agricultural scientists, biodiversity advocates, and concerned citizens opposing genetic uniformity and unnatural agricultural practices. We stand for scientific integrity and agricultural diversity.

We are not anti-science. We are pro-REAL science.

OUR FRAME: GENETIC DISASTER IN WAITING

Modern commercial bananas represent everything wrong with industrial agriculture:

- **Genetic monoculture:** 99% are clones (Cavendish cultivar)
- **Unnatural selection:** Seedless, sterile, unable to reproduce naturally
- **Artificial dependence:** Require human intervention to propagate
- **Existential vulnerability:** Panama Disease could wipe out entire species
- **Corporate control:** Patents and genetic manipulation
- **Lost biodiversity:** Hundreds of banana varieties abandoned for one “perfect” clone
- **Playing God:** Genetic engineering without understanding consequences

YOUR ASSIGNMENT

Create **scientific advocacy material** (white paper summary, educational article, policy brief, lab report-style exposé, or scientific infographic) that:

1. **Makes the case against banana monoculture and genetic uniformity**
2. **Targets one of these audiences:**

- Science-literate consumers
- Agricultural policy makers
- University students
- Farmers and agricultural workers
- Environmental regulators

3. Employs scientific evidence and concern:

- Genetic cloning facts
- Panama Disease threat (Tropical Race 4)
- Historical precedent (we already lost Gros Michel bananas this way!)
- Biodiversity collapse
- Evolution and genetic diversity principles
- Natural vs. artificial selection

4. Uses scientific authority:

- Technical terminology (when appropriate)
- Citations to research
- Logic-based argumentation
- Risk assessment frameworks
- Historical case studies
- Expert warnings

SUCCESS CRITERIA

You've succeeded if:

- Readers understand the genetic vulnerability of modern bananas
- The science feels accessible but authoritative
- Consumers question whether “perfect” produce is actually dangerous
- Policy makers consider regulations on monoculture
- Your piece balances alarm with scientific credibility
- Readers see this as a cautionary tale about agricultural practices

You've failed if:

- You sound like anti-science conspiracy theorists
- The technical details overwhelm the message
- Readers dismiss you as Luddites or fearmongers
- You can't articulate what should replace current banana production
- The piece feels more emotional than evidence-based

- You accidentally advocate for positions you don't hold

RESEARCH CHALLENGE

Find **3 peer-reviewed or credible scientific sources** about:

- Cavendish banana genetic uniformity
- Panama Disease (Fusarium wilt) and its spread
- Agricultural monoculture risks
- The extinction of Gros Michel bananas (1950s)
- Biodiversity and species resilience
- Genetic engineering in agriculture

Critical question: How do you communicate scientific risk without sounding alarmist? How do you critique genetic uniformity without seeming anti-technology?

REMEMBER

We're not against bananas. We're against putting all our bananas in one genetic basket. This is basic biology: genetic diversity = species survival. The current system is a disaster waiting to happen—again.

Our ancestors witnessed the Gros Michel apocalypse. Will we repeat their mistakes with Cavendish?

TONE OPTIONS: Scientific paper summary, policy brief, educational article, risk assessment, botanical warning, agricultural analysis, peer-reviewed style opinion piece

DELIVERABLE: A scientifically grounded piece that makes agricultural biodiversity compelling and urgent without sacrificing credibility.

BAN-Bananas: Because Evolution Had It Right
"Diversity is survival. Monoculture is extinction."

NOTE: Please include proper citations. We're scientists, not propagandists.