Module 1 – Foundations of Sustainable Agri-Food Systems & Circular Economy

Lesson A, B, C Quiz

Lesson A Quiz:
QUIZ LINKS:

Module 1 Lesson A Quiz - Editor Link
Module 1 Lesson A Quiz - Responder link

Multiple choice

Select the correct definition of a sustainable food system:

A. Producing as much food as possible using only synthetic fertilizers and pesticides.
B. Focusing only on growing cash crops for export without considering local needs.
C. Delivering nutritious food to sustain and strengthen environmental, economic, and social foundations
D. Using machines to replace all human labor in food production regardless of environmental impact.

What are the 3 P's (the 3 principles of sustainable food systems)?

A. People, planet, profit
B. Power, performance, popularity
C. Plants, pollution, packaging
D. Production, processing, pricing

Which of the following is a planetary boundary of Earth that has already been crossed?

A. Solar energy use
B. Ocean salinity balance
C. Mountain elevation levels
D. Biosphere integrity

What happens if there is an increase in nitrogen and phosphorus on Earth?

A. Increased crop growth with no side effects
B. Dead zones and algae booms
C. Stronger roots in all plants
D. Cooler ocean temperatures

Why is the "Double the Food" claim not true?

A. Because food can only be doubled every 50 years, not sooner.
B. It ignores the fact that technology will make food grow faster automatically.
C. Because doubling food supply will immediately reduce all hunger worldwide.
D. It assumes there's no change in waste or diet, and does solve nutrition gaps

____ forms a roadmap for ending poverty, protecting the planet, and ensuring prosperity and equality by 2030.

A. Global trade agreements (GTAs)
B. Universal health protocols (UHPs)
C. Sustainable development goals (SDGs)
D. Climate control policies (CCPs)

What is the main cause identified that is pushing Earth past its boundaries?

A. Urban architecture
B. Food systems
C. Space exploration
D. Digital technology use

True or False

The number one cause of deforestation & habitat loss is due to food systems/agriculture

Short Answer

Briefly explain why cutting waste and shifting diets could be extremely beneficial changes.

Answer should:

- Explain what cutting waste and shifting diets means
- Explain how these changes could benefit the planet
- Be 2-3 sentences long

Short Essay

Define the 3 principles, and why they play a significant role in sustainable food systems.

Requirements:

- Clearly explain each of the 3 P's
- Explain the significance of the 3 P's in sustainable agriculture

Lesson B Quiz – From Linear to Circular: Rethinking Food Production

QUIZ LINK:

[Module 1 Lesson B Quiz - Editor Link]
[Module 1 Lesson B Quiz - Responder Link]

Multiple choice

Which of the following is a correct definition of the linear path of food production?

A. Grow → eat → compost
B. Take → make → waste
C. Buy → store → recycle
D. Plant → harvest → reuse

Circular economy ___ natural systems instead of ___ them.

A. Destroys, protecting
B. Ignores, enhancing
C. Copies, damaging
D. Regenerates, depleting

What kinds of byproducts can be repurposed into bioplastic or biodiesel?

A. Sand and gravel
B. Fruit pulp and cooking oil
C. Plastic bags and metal cans
D. Glass bottles and paper cartons

What is a closed loop food system?

A. Nutrients and materials keep cycling
B. Food is grown only once and then discarded
C. All food is imported from other countries
D. Food production uses only synthetic chemicals

In Sicily's citrus super loop case study, how do they reduce citrus waste and create a closed loop system?

A. Burning peels for energy without recycling
B. Throwing peels directly into landfills
C. Drying and milling peels
D. Using peels as animal feed without processing

Which of the following is NOT a feature of regenerative farming?

A. Building soil carbon
B. Managed grazing
C. Restoring ecosystems
D. Using synthetic fertilizers

What is the similarity between agroecology and regenerative agriculture?

A. Relying only on chemical fertilizers
B. Nature powered farming
C. Using machines to replace all labor
D. Growing only one crop at a time

True or False

Food scraps are waste that have no potential for being reused

Short Answer

How does regenerative agriculture improve the health of farmland over time? Use one example from Lesson B to support your answer.

Answer should:

- Describe one example of regenerative agriculture
- Explain how it can improve farmland health
- Be 2-3 sentences long

Short Essay

In your own words, explain how agroecology applies the ideas of the circular economy to farming. Use at least two examples from Lesson B to show how these practices help create a self-regenerating agricultural system.

Requirements:

- Describe two examples from the Lesson B agroecology topic
- Explain how the circular economy applies to farming
- Be 3-5 sentences long

Lesson C Quiz – Paths to Action: Diet, Innovation, Policy

QUIZ LINK:

[Module 1 Lesson C Quiz - Editor Link]
[Module 1 Lesson C Quiz - Responder Link]

Multiple choice

What is NOT one of the three interconnected pathways for transforming the food system?

A. Dietary shift
B. Urbanization
C. Innovation
D. Policy

Which of the following is France's policy?

A. Supermarkets must donate edible food instead of trashing it
B. All farms must use only organic seeds
C. Restaurants must serve only plant-based meals
D. Grocery stores must label food by carbon footprint

____ or ____ pricing shifts could make unsustainable choices less profitable and give sustainable products an edge

A. Water, sunlight
B. Energy, plastic
C. Carbon, nitrogen
D. Labor, transport

Western countries' beef consumption needs to drop by about ___ to avoid catastrophic environmental damage by mid-century.

A. 30%
B. 50%
C. 70%
D. 90%

By what amount does cattle take up agricultural land?

A. ¼
B. ⅔
C. ½
D. ¾

True or False

Beef has a carbon footprint roughly 10 to 20 times higher per gram of protein than plant proteins.

Short Answer

Think of one of the policies discussed in Lesson C. Explain how that policy could help promote smart and sustainable choices

Answer should

- Reference one of the policies mentioned from Lesson C (i.e. smart incentives, food waste targets, food smart cities, regulating toxins)
- Explain some features of that policy that promote a sustainable future
- Be 2-3 sentences long

Design Prompt

Come up with a business that you would create, which incorporates sustainable food practices and circular designing.

Requirements:

- Create a business references some ideas mentioned from Lesson C
  OR
- Create a business with some ideas of your own (does not have to be completely realistic, but should make sense at least!)
- Be 4-5 sentences long