

ISSUE: How innovations in food sustainability can help feed the world?

1. GETTING FAMILIAR WITH THE TOPIC - The Future of Food

- *Nature of the document / key details / layout*:* [layout : mise en page]
- *Imagine some of the questions / issues that will possibly be discussed during this event:*



a **drought** : une sécheresse • **dried earth** • **sustainable food production** • (to) **address a challenge** : relever un défi • **climate change** • (to) **feed** the world's **growing** population • a **diet** : un régime alimentaire • **cattle produce methane** : les bovins produisent du méthane • **environmentally friendly** : respectueux de l'environnement • **sources of nutrition**

- *Explain how you imagine the future of food in the decades to come:*

protein • **insect-based foods** • **plant-based meat** / **artificial meat** • an **alternative to beef** a **vegetarian diet** • **dairy products** : produits laitiers • **seaweeds** : des algues • it **tastes like chicken** : cela a goût de poulet • **artificial flavor** : arôme artificiel •

- *Someone offers you to taste this product in a supermarket. Would you agree or no? Justify your choice:*



cricket-based protein bar

2. WATCHING & LISTENING - Lab-Grown Meat

➤ Consider these two pictures to anticipate on the video:



➤ Get familiar with the vocabulary below before watching the video:

(to) **slaughter** : envoyer à l'abattoir • the **tropical rainforest** • **greenhouse gas emissions**
engineering : une réalisation technologique • a **cell** : une cellule • (to) **grant an approval for sale** : accorder un agrément pour la commercialisation • **regulators** : organismes de contrôle
bioprinting : méthode de production de tissus vivants par impression

➤ Watch the video and write down details about:

- A - The **characteristics** of the technology mentioned in the video.
- B - The **disadvantages** of raising cattle to produce beef meat.
- C - The significant **facts & figures** (amount, weight, price, cost...).
- D - The **advantages** of these alternatives to meat.
- E - The various **companies** involved.



Source : Business Insider - youtu.be/UQejwvnog0M

3. REACT - Is Cultivated Meat The Future Of Protein?

➤ Your reactions to this technological advancement:

4. INFORMATION ANALYSIS - Faux-Meat vs. Real Beef

Beyond Beef Burger
Ingredients

- Water
- Pea Protein Isolate
- Expeller-Pressed Canola Oil
- Refined Coconut Oil
- Cellulose from Bamboo
- Methylcellulose
- Potato Starch
- Natural Flavor
- Maltodextrin
- Yeast Extract
- Salt
- Sunflower Oil
- Vegetable Glycerin
- Dried Yeast
- Gum Arabic
- Citrus Extract
- Ascorbic Acid
- Beet Juice Extract
- Acetic Acid
- Succinic Acid
- Modified Food Starch
- Annatto

Beef Burger
Ingredients

Beef

THE BEYOND BURGER®

99% Less WATER

93% Less LAND

90% Fewer GREENHOUSE GAS EMISSIONS

46% Less ENERGY

THE BEEF BURGER

➤ Write a caption* for each picture:

[caption : légende]

plant-based • (to) make a list of • side by side • the benefits ≠ the drawbacks
 the advantages ≠ the disadvantages • processed-food : aliments transformés
 the environmental impact, the carbon footprint : l'empreinte carbone •
 while X is ..., it is not... : bien que • X is ... whereas Y is ... : mais, alors que •
 on the contrary • in contrast, quite/just the opposite
 (to) mimic : imiter • the taste/flavor • the texture • coloring

- Compare picture 1 and 2. Explain how “faux-meat” (or plant-based meat) is different from real beef:
- Explain how the production of plant-based meat compares to the production of real meat in terms of environmental impact:

5. YOUR OPINION - Plant-based meat: The future of Food?

- How do you think plant-based meat will impact the meat industry in the future? Do you think plant-based meat is a good alternative for people who want to reduce their meat consumption? Why or why not?

6. LISTENING - Movie trailer - Soylent Green (1973)

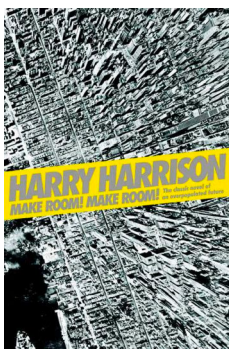
► *Soylent Green - Give a brief summary of the movie plot** [plot : intrigue]



a **dystopian future** • **overpopulated / overcrowded** • leading to :
conduisant à • a **shortage of resources** : une pénurie de ressources •
scarce : rare • **housing** • **polluted** • **synthetic food**

7. READING - A Tale of Overpopulation and Food Shortages

► *Read an introduction to the novel that was adapted into an SF movie:*



"**Make Room! Make Room!**" is a science fiction novel by Harry Harrison, published in 1966 that was adapted into the film "**Soylent Green**".

The novel is set in a future where the world's population has grown to the point where people must fight for survival. Water, energy and food are scarce resources and only a wealthy minority can afford fresh real meat or a comfortable place to sleep.

The main character, Andy Rusch, is a detective in New York City who is trying to solve a murder mystery.

► *Read an excerpt from the novel and answer the questions:*

A riot happens after a food shop has a surprise sale on "soylent" steaks. The shop is looted by the mob of people. Andy Rush joins the patrolmen in pushing the crowd back. In the following scene, one of the main protagonists, Billy Chung, 18 years-old, grabs a box of these steaks.*

- 1 He lay sideways on the coolness of the earth and **tore open** the box. Look at that, look at
- 2 that, he said over and over again to himself and laughed as he realized he was beginning to
- 3 drool* and had to spit away the excess saliva. Soylent steaks, a whole boxful, each flat and
- 4 brown and big as his hand. He bit into one, **choked** and **wolfed** it **down**, forcing **crumbling**
- 5 pieces into his mouth with his dirty fingers until it was so full he could hardly swallow*,
- 6 chewing at the lovely softness. How long had it been since he had eaten anything like this?
- 7 Billy ate three of the soybean and lentil steaks that way, pausing every now and then between
- 8 bites and poking his head cautiously out, brushing the lanky* black hair from his eyes as he
- 9 looked upward. No one was watching him. He took more out of the box, eating them slowly
- 10 now, and only stopped when his stomach was stretched out tautly*, and grumbling at the
- 11 unusual condition of being **stuffed** so full. While he licked the last of the crumbs from his
- 12 hands he worked on a plan, already feeling unhappy because he had eaten so many of the
- 13 steaks. **Loot** was what he needed and steaks were loot and he could have stuffed his gut as
- 14 well with **weedcrackers**. Hell. The white plastic box was too obvious to carry and too big to
- 15 hide completely under his shirt, so he had to wrap the steaks in something.

Excerpt from "Make Room! Make Room!" By Harry Harrison (1966)

loot : v. piller ; n. le butin • (to) **drool** : baver • (to) **swallow** : avaler • **lanky** : tendu • **tautly** : d'un air tendu

a. Match each word in bold letters with the corresponding definition:

- : A situation in which a group of people behave in a violent way in a public place.
 : To damage something by pulling it apart or into pieces.
 : To be unable to breathe because the passage to your lungs is blocked.
 : To eat something very quickly or ravenously (voraciously).
 : To break something into very small pieces.
 : Having eaten so much that you cannot eat anything else.
 : Valuable objects or money that have been stolen by thieves.
 : (In the context of the novel) a thin dry biscuit made with green plants.

b. Explain the cause of the riot started by the mob of people:

c. Give details about what Billy Chung found in the box:

d. What is the name of this product? Explain its name.

e. Copy out 3 quotes that show that food is a scarce resource:

f. Find 3 quotes from the text that demonstrate the high value placed on "soylent" steaks as a desirable food:

g. Explain why Bill Chung feels unhappy after having eaten so much:

8. WATCHING - What is the secret of Soylent Green?

➤ **The final scenes of "Soylent Green" reveal the major difference between the book and its movie adaptation. Explain why:**

Affix the secret of
Soylent Green here



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