Are bioplastics the solution?

Sustainable development is an important issue for the cheese industry. Packaging is a complicated task for a cheesemaker because a cheese is alive and its packaging must, of course, allow for preservation but also for further ripening. To stand out in a field as competitive as the food industry, packaging innovation is a priority.

In the bioplastics lab, you used starch and milk curds to produce a bioplastic. These methods of producing plastic produce substances that degrade more easily in the environment, but it uses resources that have food potential.

Do some research to find recent information on the development of innovative food packaging. You will need to present your findings to the class. Remember that innovation is not always about creating a new product, but also about rethinking an existing product.

Looking for inspiration? Read about how Fromagerie L’ancêtre improved its packaging:

Examples of eco-responsible packaging [<https://www.eeq.ca/en/ecoresponsible-packaging/exemples-demballages-ecoresponables/fromagerie-lancetre/>]

or watch this report by Radio-Canada

[L’emballage de demain](https://ici.radio-canada.ca/nouvelle/1022852/emballage-alimentaire-bioplastique-bacterie-conservation-biodegradable-udem-polytechnique-chimie-gaspillage) [<https://ici.radio-canada.ca/nouvelle/1022852/emballage-alimentaire-bioplastique-bacterie-conservation-biodegradable-udem-polytechnique-chimie-gaspillage>]

**Objective**

* Identify a material and a method of producing packaging
* Recognize the contribution of scientists to the production of ecological products.
* Identify jobs related to the development of new materials.

**Instructions**

1. Research a new product that could become an alternative to petrochemical plastics. Determine its chemical composition, the way it’s made, its economic and environmental advantages, and its economic and environmental disadvantages.
2. You will have to present your findings to the class. You can choose the presentation method of your choice.

**Assignment to complete**

1. ***Research folder***

Create a research folder called Food packaging in which you’ll keep all your research data. Your folder must contain:

* 1. An article about your product.
  2. Its composition.
  3. Method of fabrication.
  4. Company or research centre that develops the product.
  5. Economic advantages and disadvantages related to the product.
  6. Environmental advantages and disadvantages related to the product.
  7. Advantages and disadvantages related to health and food safety.
  8. A research centre, organization, or company that is developing a similar product here in Canada.
  9. A minimum of two jobs or careers required to develop this new product.

2. ***Oral presentation***

Your presentation should include the following elements:

1. Your product (name and composition or basic material) with an image.
2. How this product is different from what already exists (advantages in relation to health, food safety and the environment).
3. The limitations of the product (disadvantages in relation to health, food safety and the environment).
4. Availability - if it has been marketed, if not, when it will be produced.
5. Why this product is a product of the future.
6. Be sure to indicate your **sources and reference**s thoroughly and accurately.
7. Use the tools made available to you to submit quality work.