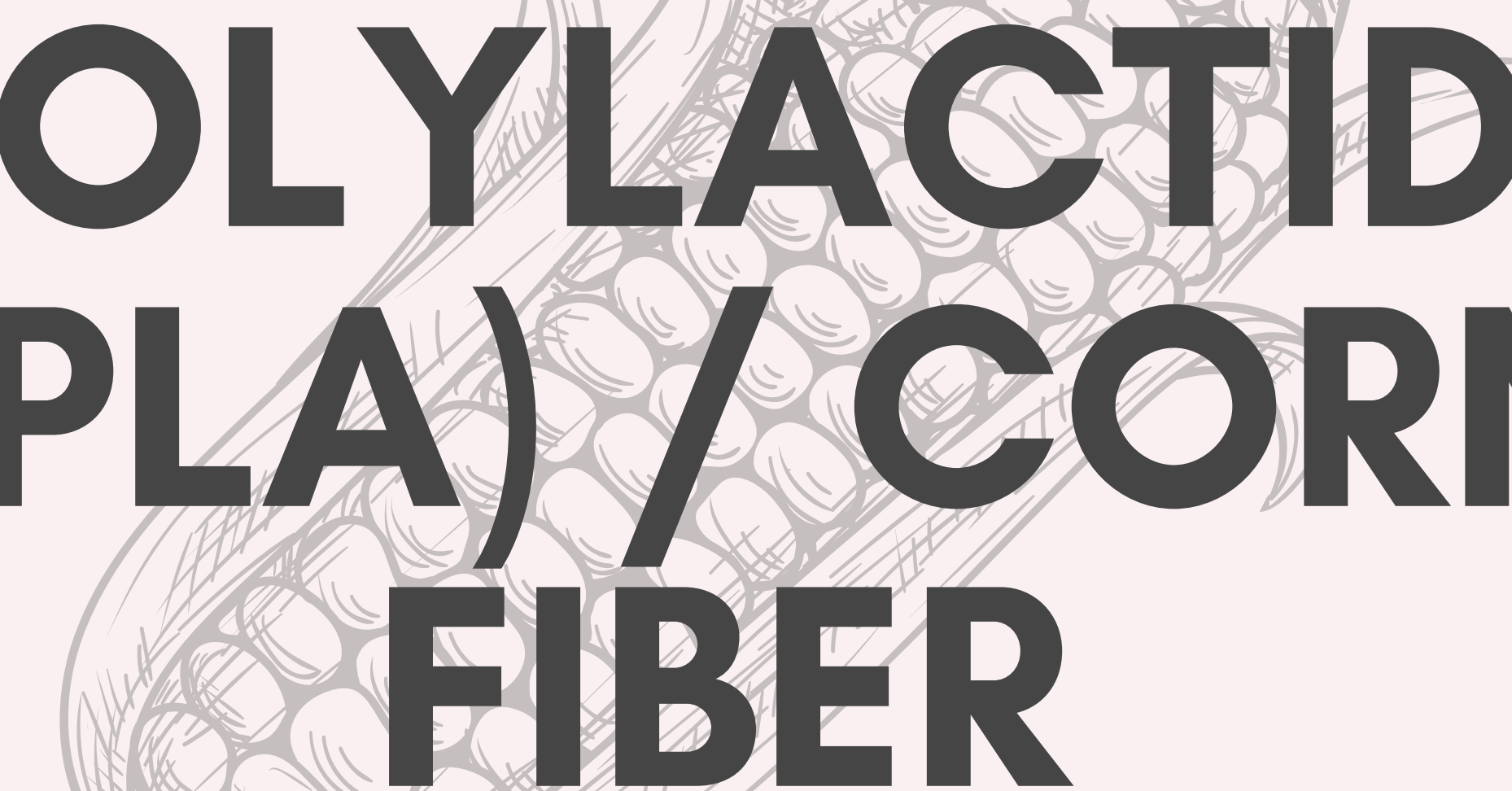


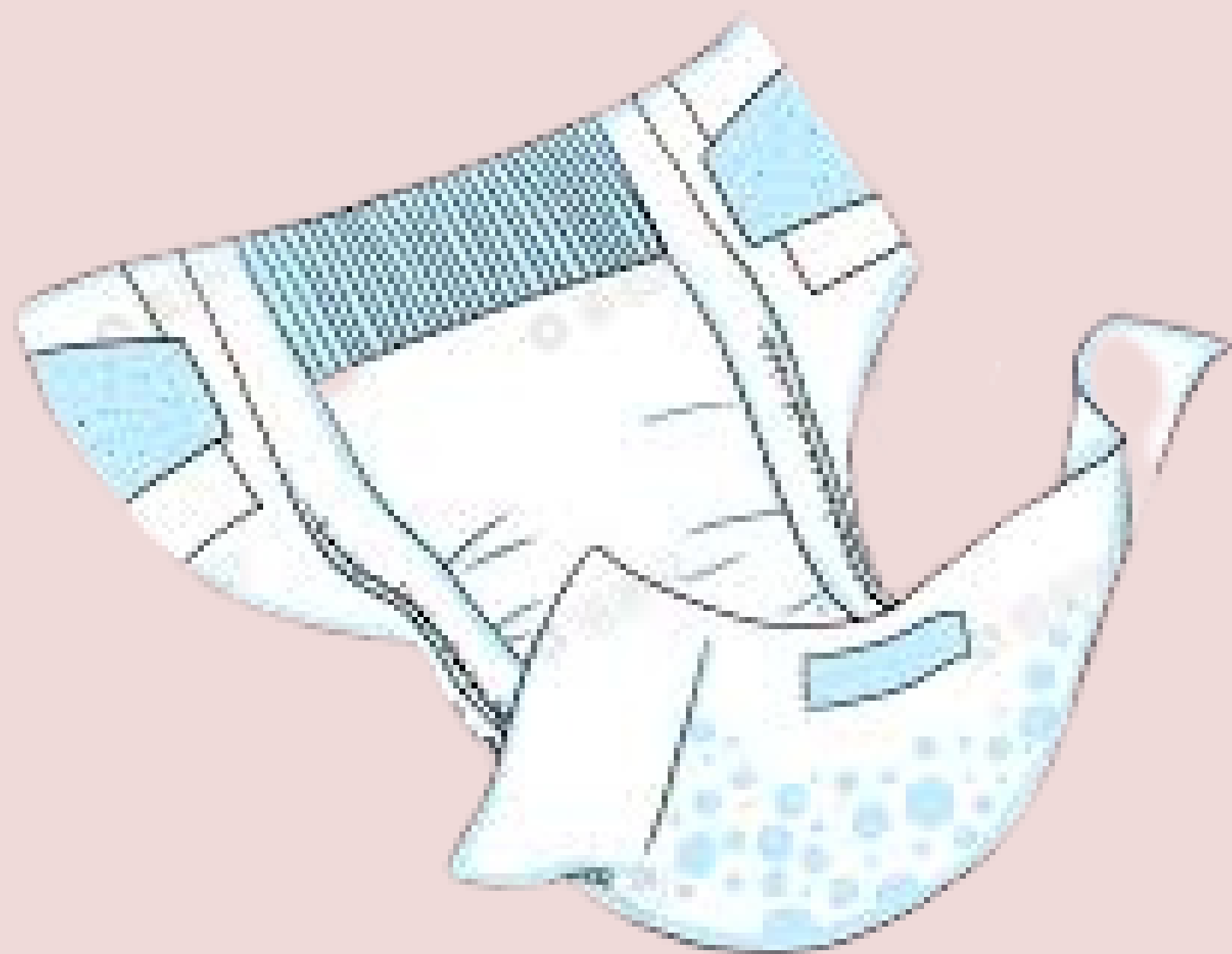


**TEXTILE STUDY ANALYSIS OF FIBER &  
TEXTILE**

# **POLYLACTIDE (PLA) / CORN FIBER**

A detailed line drawing of a corn cob, showing the individual kernels and the husk. The drawing is rendered in a light gray tone and is positioned behind the main title text.

**BY: MICHAEL SIAJAYA**  
**FASHION BUSINESS**



# **DIAPERS MADE FROM CORN?**



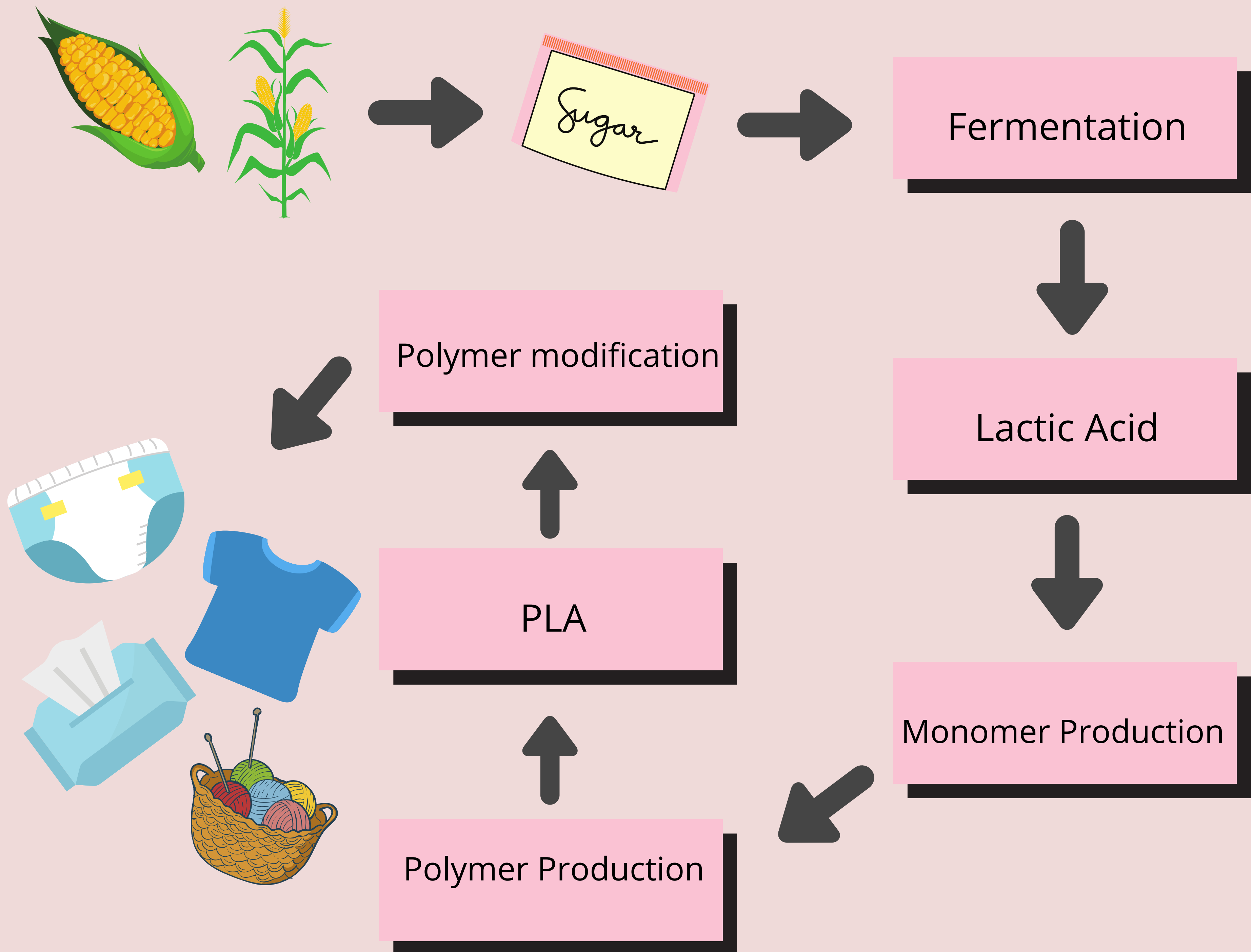
1.816 tons of disposable diapers are used daily in the U.S. Corn starch may sound like an unusual ingredient to include in a diaper, but it's safe to use, available in large quantities and cheap to buy. In the United States, 1,816 tons of disposable diapers are used daily

# ***Poly lactide (PLA)***

1. Highly versatile thermoplastic polymer
2. Made 100% from renewable resources
3. Lactic acid is derived from various sources :
  - ➔ Corn starch
  - ➔ Tapioca Products ( roots, Chips or stretch
  - ➔ Sugarcanes



# Manufacturing steps



# *Properties*

1. Insoluble in water, moisture, and grease resistant
2. Clarity and Glossiness similar
3. Biodegradable and compostable

# Products

Industrial Fibers and Non-wovens



Carpet Tiles



Wipes



Apparel

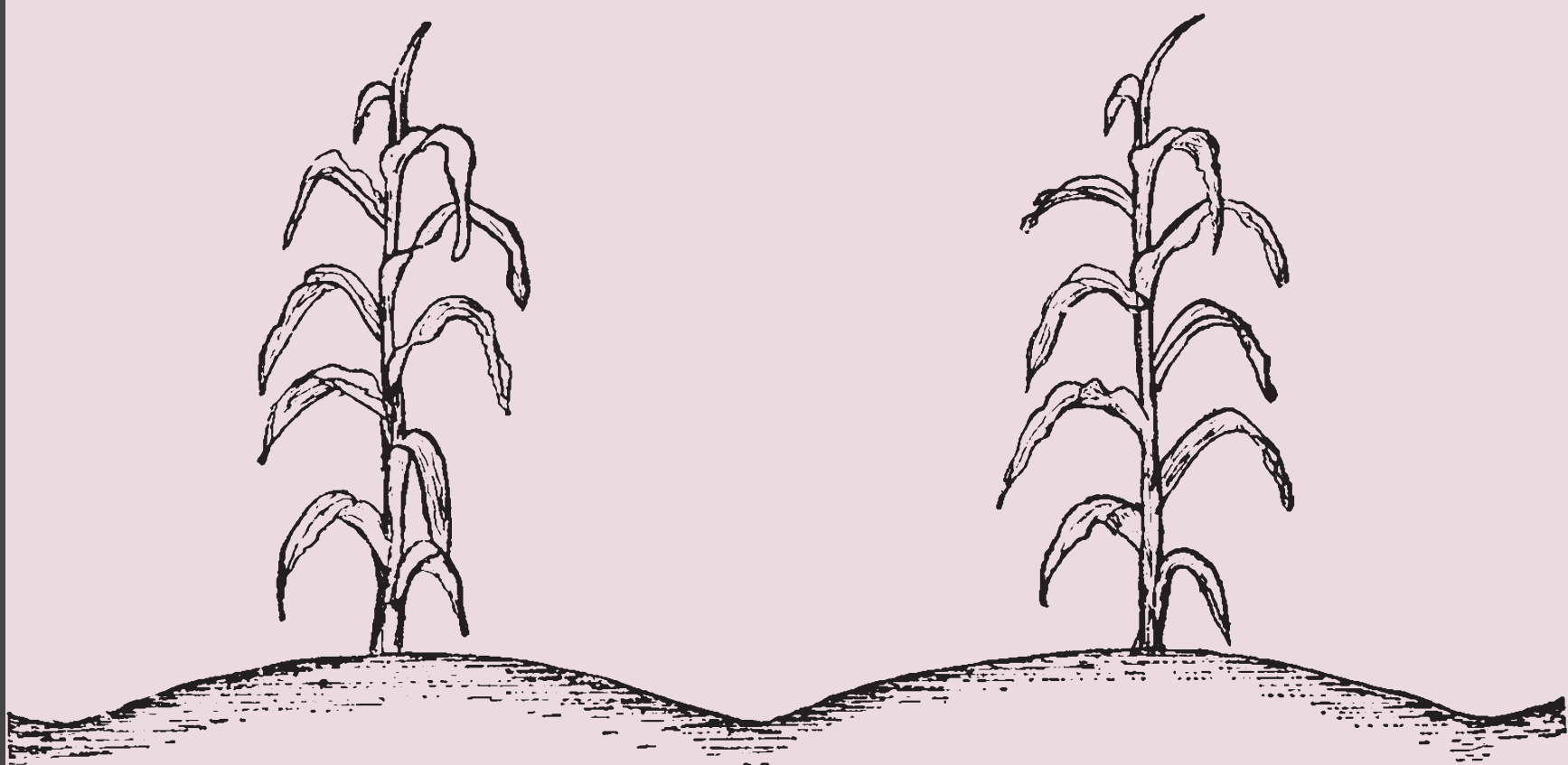


Diapers



# *Advantage*

1. Biodegradable nature and sustainable process by which it is made, making it the environmentally friendly
2. It produces no toxic compounds when burned
3. It produces methane, a potent greenhouse.
4. PLA is thermoplastic, meaning it will turn into a liquid in its melting points of 150 to 160 Celsius .



## ***Disadvantage***

1. A material made from PLA may even show signs of getting soft or deforming on a hot summer day
2. PLA packaging material has been found to be more permeable to moisture and oxygen compared to other plastics, which may result in faster spoilage

