


An aerial photograph of a vast, dense palm oil plantation. A straight, light-colored dirt road runs vertically through the center of the image, flanked by rows of mature palm trees. The canopy of the trees is a deep green, and the perspective leads the eye towards a distant horizon under a pale sky.

**WHAT IS THE PALM OIL JOURNEY  
FROM PLANTATION TO PRODUCT?**







**12 years**  
the trees provide the  
largest yields



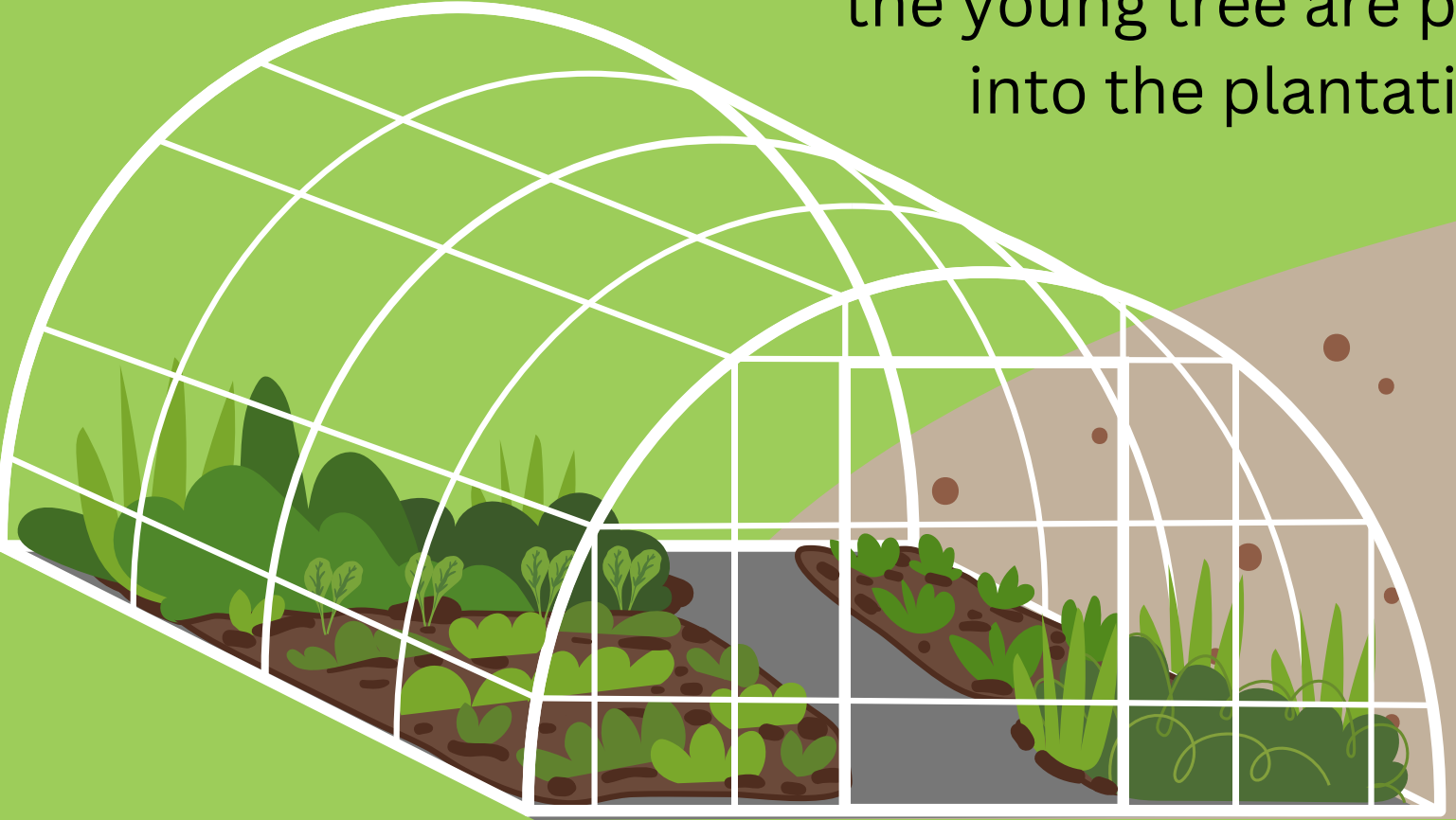
**60 years**  
yields start to reduce



**1 years**  
the young tree are planted  
into the plantation



**3 years**  
the trees are fully grown and  
start to bear fruit

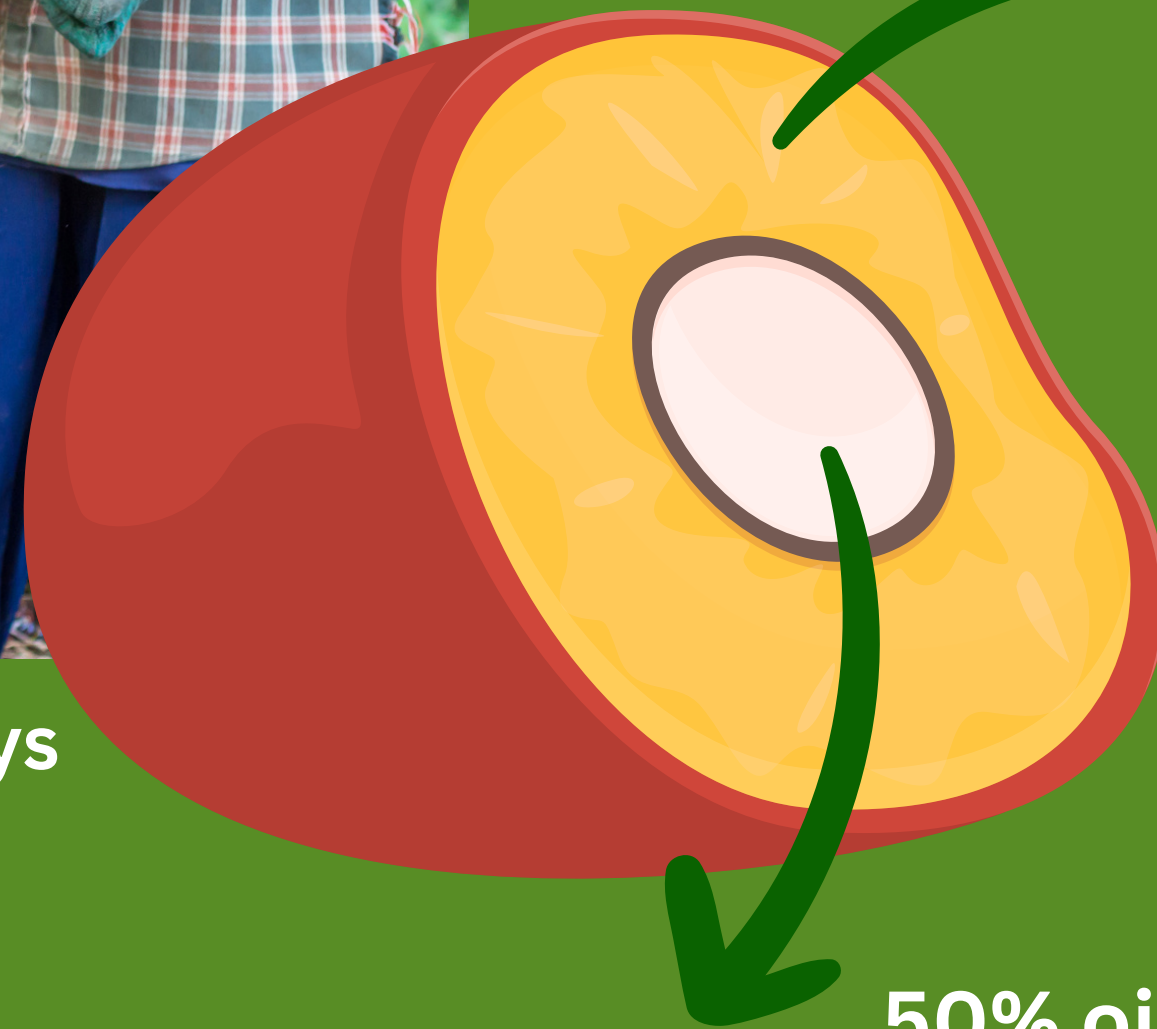


**0 years**  
the saplings  
start in a nursery





oil palms are harvested every 10-20 days  
with 150-200 fruit bunches per tree



40% fat content  
in the flesh

fat extracted from the fruit flesh  
whilst fresh onsite at the  
mill or close by

50% oil content  
in the kernel

kernels can be transported for  
oil extraction elsewhere

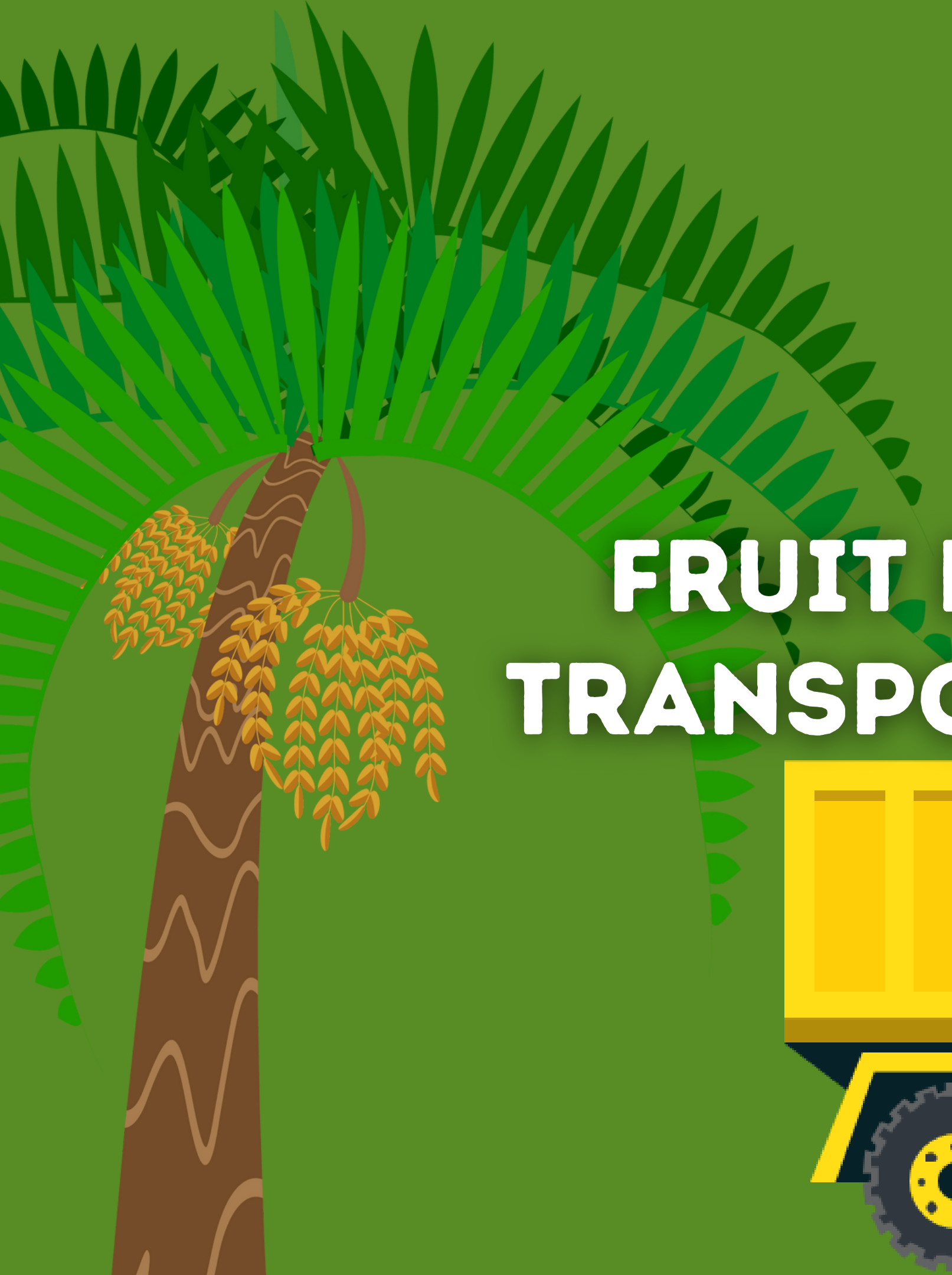




PLANTATION



**FRUIT BUNCHES ARE  
TRANSPORTED TO MILLS**



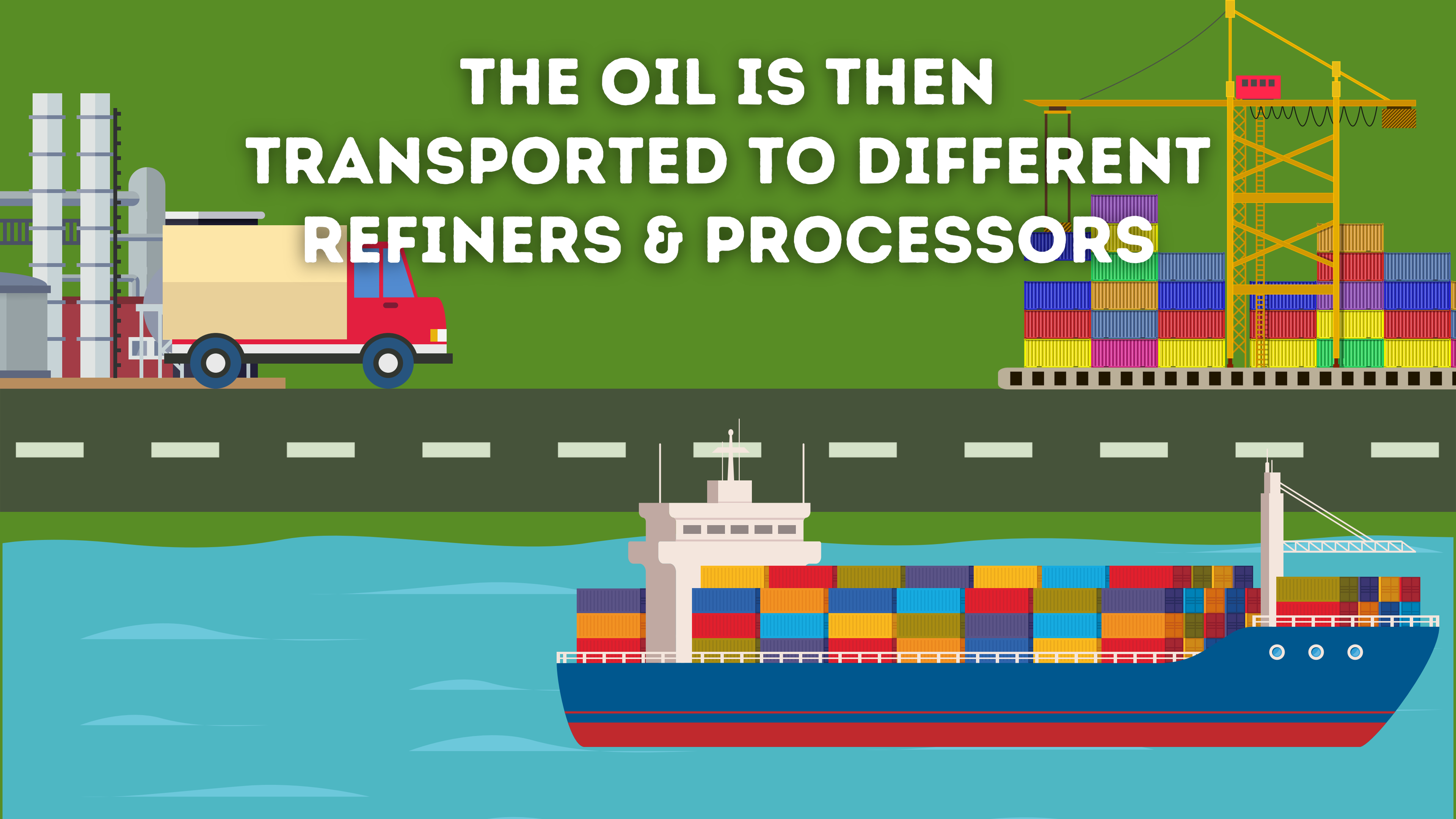


A stylized illustration of a palm oil extraction plant. In the foreground, a yellow dump truck is partially visible on the left. Behind it is a large grey cylindrical storage tank with an orange oil drop icon on its side. To the right of the tank is a tall red vertical column. Further right is a large blue spherical storage tank supported by a metal frame. In the background, there are several tall grey smokestacks with horizontal bands, emitting white smoke. The entire scene is set against a solid green background.

**PALM OIL IS EXTRACTED  
FROM FRUIT AND KERNEL**



**THE OIL IS THEN  
TRANSPORTED TO DIFFERENT  
REFINERS & PROCESSORS**





crude palm

refined palm oil

palm stearin

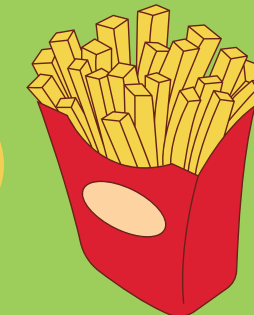
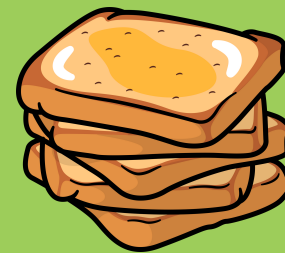
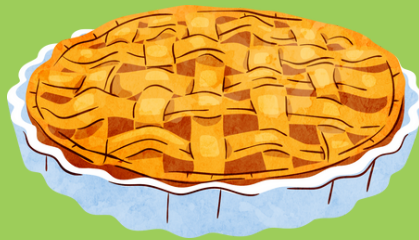
palm olein

mid stearin

mid fraction

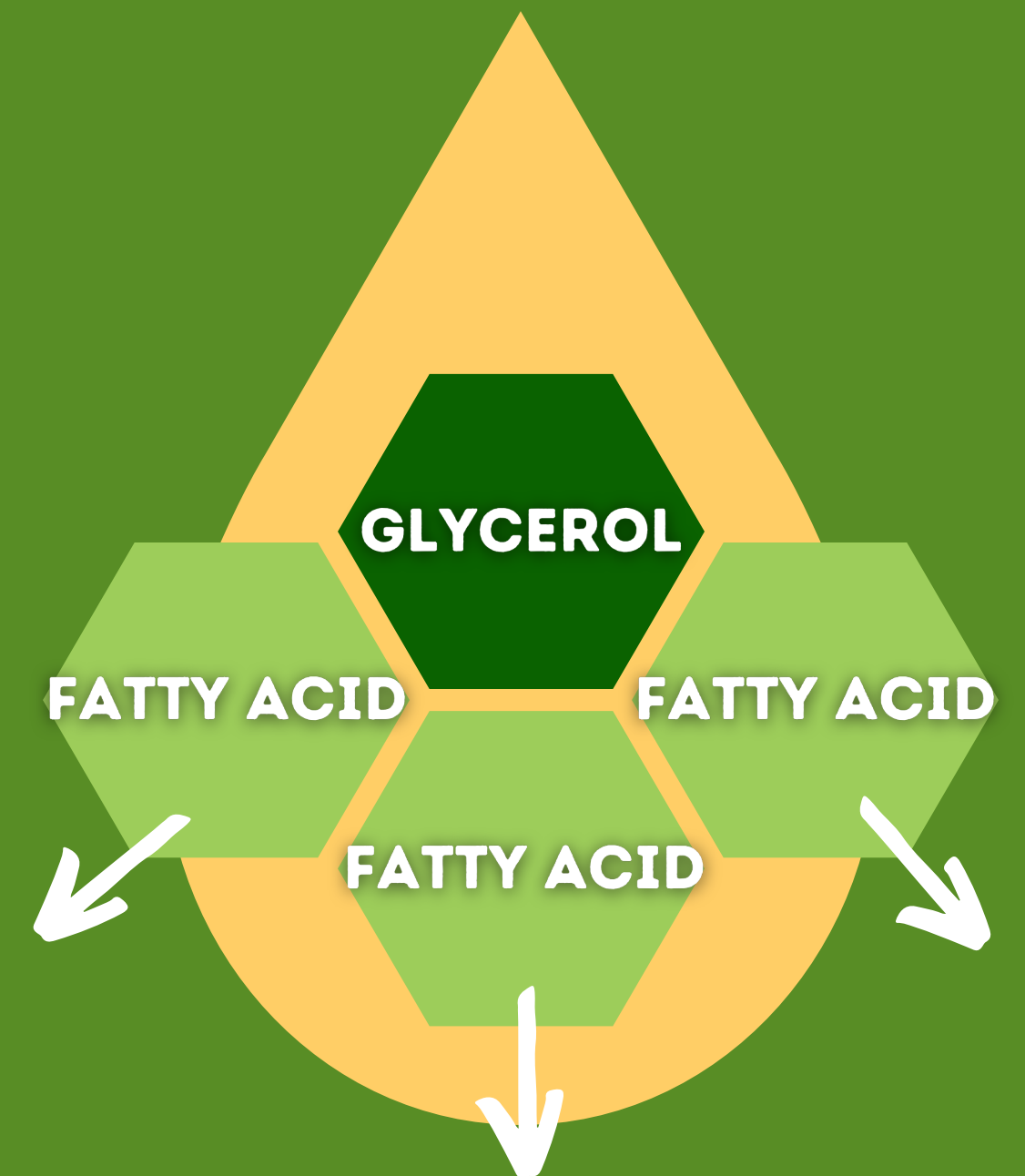
double stearin

double olein

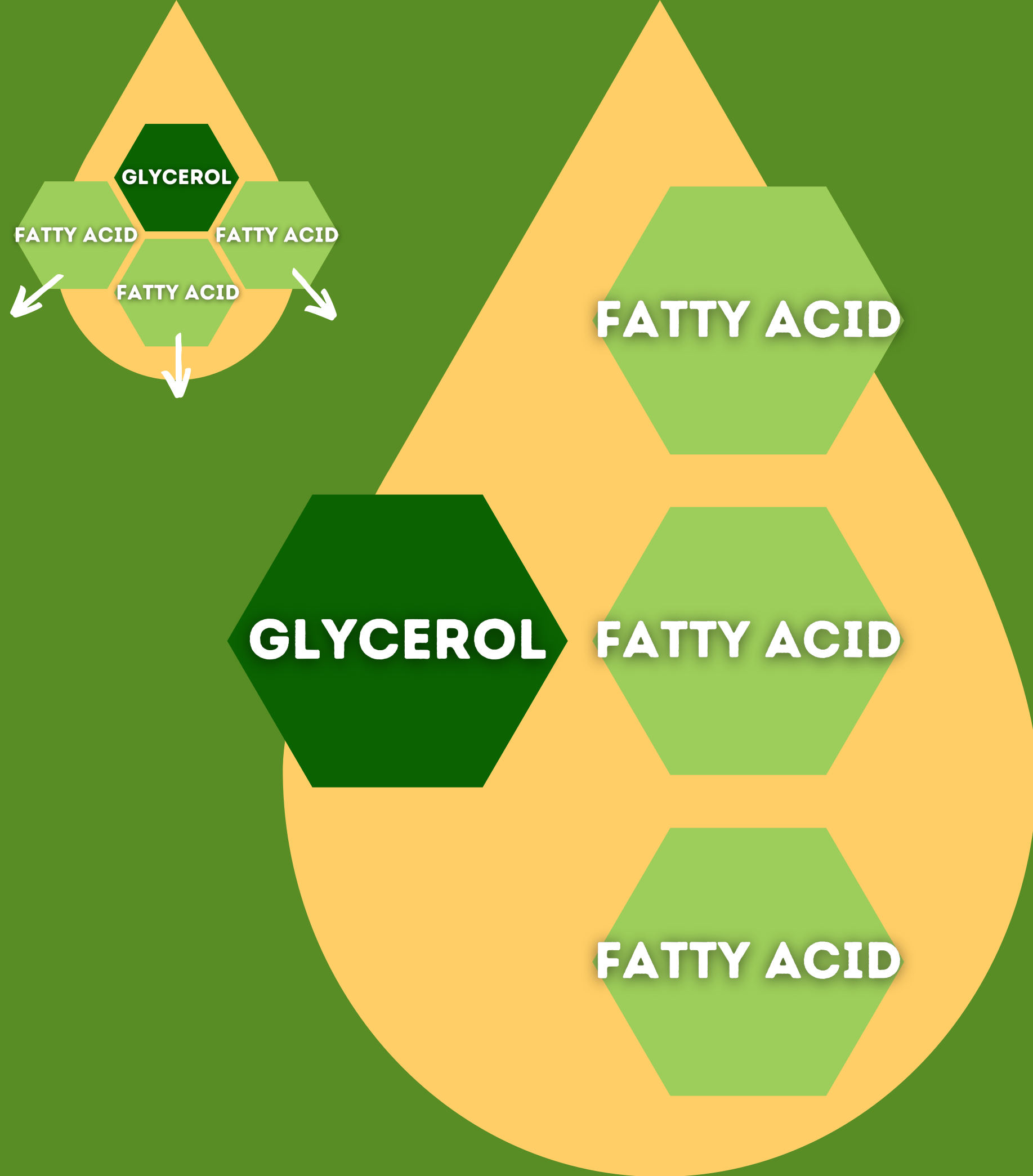




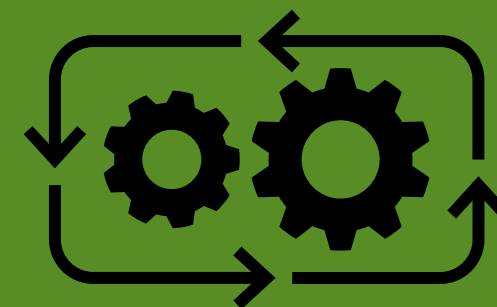
# THE GLYCEROL & FATTY ACIDS THAT MAKE UP PALM OIL ARE SEPARATED







HYDROLYSIS



SEPARATION  
PROCESSES





# OLEOCHEMICALS CREATED FROM PALM OIL PROCESSING AND THE PRODUCTS THEY CAN END UP IN

GLYCEROL

FATTY ACID

ESTERS (SALTS)

OLEOCHEMICALS

## STEROL LACTYLIC ACID



BAKED GOODS TO EXTEND  
SHELF LIFE, PROVIDE A  
SOFTER CRUMB AND MORE  
VOLUME IN DOUGH

## FATTY AMINES



THE MAIN APPLICATION OF  
FATTY AMINES IS AS FABRIC  
SOFTENERS AND HAIR  
CONDITIONERS

## METHYL ESTERS



CLEAN BURNING  
RENEWABLE FUEL MADE  
FROM NATURAL PLANT OIL

## SODIUM STEAROYL FUMARATE



IS USED AS LUBRICANT IN THE  
MANUFACTURING OF TABLETS,  
CAPSULES AND OTHER ORAL  
DOSAGE FORMS.

## FATTY ALCOHOLS



MAINLY USED IN THE  
PRODUCTION OF  
DETERGENTS AND  
SURFACTANTS. THEY ARE  
COMPONENTS ALSO OF  
COSMETICS, FOODS, AND  
AS INDUSTRIAL SOLVENTS.

## STEARYL TARTARATE



USED AS EMULSIFIER UNDER  
THE E NUMBER E 483.  
BEVERAGES, CANDY, ICE  
CREAM, BAKED GOODS,  
YOGURT, GELATIN DESSERTS,  
BAKING POWDER.

