

### What are biofuels?

Biofuels are liquid or gaseous fuels made from plant or animal material, for example:

- plant oils or sugary/starchy parts of crops
- trees, wood chippings and straw
- waste oil such as vegetable cooking oil
- animal waste
- oils in algae

Biofuels are renewable – the plant and animal material from which they are made can be replenished.



### Why consider biofuels?

At the moment a lot of the world's energy comes from fossil fuels: coal, oil and gas. These fuels originate from under the land or sea all around the world but once they have been used they cannot be replaced. Fossil fuels are called non-renewable energy sources. Some people hope that in the future, biofuels could be used instead of fossil fuels to run cars, trains and even planes.

Some of the most popular biofuels are biodiesel made from the plant oils of palm or soybean, and bioethanol made from the sugar/starch of corn or sugar cane. The crops from which they are produced are already well-established in agriculture around the world and can be grown quickly.

### Where are most biofuels produced?

Most of the biofuels currently used come from crops grown by farmers. Brazil produces a lot of sugar cane and a large amount of palm oil comes from palm plantations in South-East Asia. European weather is good for growing rapeseed, wheat and sugar beet, while the US grows more corn and soybean.

New types of biofuels, for example those made from algae or non-food crops, are being developed, but commercial production is still some years away.

### Why are biofuels popular?

Scientists and governments are worried about climate change, rising oil prices and therefore making sure that they have enough fuels to keep their countries working. They are also trying to find new ways to create jobs and businesses. Because of this, they are desperately searching for alternative fuels.

George Bush, former President of the United States of America, wanted the USA to rely less on oil coming from foreign countries. In the US, there is the target to produce 136 billion litres of biofuels by 2022. Europe also thinks that biofuels might help them reduce harmful greenhouse gases and has effectively set a target that 10% of transport fuel will be from biofuel by 2020.

The UK Government has set a target that at least 5% of transport fuel must be from renewable sources by 2013.