

## **UNIT 2                      Commercial Uses of Plants                      Pupil Notes**

### **1. What are plants used for?**

- Many people grow plants because they enjoy gardening or because they think that plants make their garden or home look nice.
- Other people grow plants to make money.
- Commercial uses of plants are when plants are grown in order to make money for the grower or for someone who uses the plants to make a product which they can sell for a profit.
- Plants are grown commercially for sale as foods, sources of medicine and as raw materials.

### **2. Plants as Raw Materials**

- A raw material is something that is used in making a product.
- Many plants are used to make other products.
- Cotton plants are used to produce cotton for use in the clothing industry.
- Barley and Hops are used to make beer in the brewing industry.
- Trees such as Scots Pine and Oak are used to make timber for the production of wooden furniture and flooring.
- Jute plants are used to provide fibres for making string and rope.

### **3. Plants as Food**

- Potatoes and carrots are grown because their underground food stores can be used as sources of food for humans.
- Fruits from plants such as apple trees, orange trees and tomato plants provide humans with vitamins we need to stay healthy.
- Wheat plants are used in the production of flour for making bread and pasta.

### **4. Plants as Medicines**

- The foxglove plant is a source of a medicine called digoxin, which is used to treat heart problems.
- Poppy plants are used to make a pain killing drug called morphine.
- Many other plants may contain medicines that we have not yet discovered.

## 5 Growing Plants Commercially

- People who grow plants commercially will try to get their plants to grow as quickly as possible and produce lots of crops.
- Farmers will add fertilisers to soil to because these will help plants to grow.
- Growers will grow plants in greenhouses which have automatic heating systems.
- The warmer temperatures protect plants from frost damage and help them to grow faster.
- They can also use artificial light and add extra carbon dioxide to the air so that plants carry out photosynthesis more quickly.
- If plants carry out photosynthesis faster, they will be able to grow more quickly and produce more fruits.

## 6. Pharming

- Pharming is the term used to describe how modified plants and animals are grown to provide higher yields of foods or fuels and to make them produce different medicines.
- Genes from different organisms are introduced to the plants or animals to make them produce a substance they would not normally make.
- The production of genetically modified food crops would be an example of pharming.
- Some plants and animals have been modified to make them produce medicinal drugs and vaccines.
- Plants used so far in trials include corn and soy.
- Fruits such as bananas and tomatoes have also been used in this way.
- Pharming is a very controversial area of biology.
- Some people think this is a good idea because it might help people while other people think that this might prove to be harmful in the long term.

