

There are many productive tree species that are well suited to the climate in the UK. Almonds, walnuts, hazel and sweet chestnut will grow in the southern counties, while further north, pine, oak, beech and hazels can be productive. Apples and many other fruit species can be found to suit most parts of the UK. Hillside that have been given up to sheep grazing, such as in the Welsh hills, could be reclaimed to reinstate the magnificent forests that once existed there.

Trees can be incorporated into the home garden too. The idea of a forest garden, introduced by pioneers such as Robert Hart, uses trees that produce food crops underplanted with other plants in different layers, including fruit bushes and green and root crops.

Worldwide, more and more land is being lost each year due to increasing rates of desertification. This process need not be happening: unsustainable farming practices - grazing animals and the use of chemical fertilisers and pesticides - have led to a break down of soil structure and subsequent erosion. Deserts are now being reclaimed by major tree planting programmes.

If new forests are to be established to check global warming and to meet needs for food, energy and other raw materials, the land required will be significant. However, if this takes place alongside the phasing out of animal based farming, land which once was forests but has been cleared for grazing or overtaken by desertification following clearance could be reclaimed for large scale tree planting programmes.

So what can you do?

- Join MCL and help to spread the message. Members receive our quarterly journal *New Leaves* to keep in touch with others and share ideas for a more compassionate way of life.
- Adopt a vegan diet and use the MCL *Food Target* (on the *Food & Agriculture* leaflet and the website) to review what you eat to see how you can challenge your own dietary habits.

Other sources of information

- Abundant Living in the Coming Age of the Tree - Kathleen Jannaway. £2.35 including p&p from MCL (see website for ordering details).

For further information, please contact:

www.mclveganway.org.uk

The MOVEMENT for COMPASSIONATE LIVING
105 Cyfyng Road, Ystalyfera, Swansea SA9 2BT, UK

☎ 0845 458717 or 01639 841223



Trees for a Future

Trees are one of the most important assets on the planet and they can contribute to the solution of many of the problems that challenge humankind. Trees offer the means to meet the needs of an exploding global population from the finite resources of the planet, maintain water supplies, check floods, soil erosion and desertification and reverse global warming.

The amazing potential of trees

More needs to be done to harness the massive potential of trees as a source of food and many other raw materials that can be used by people for clothing, shelter and energy. Trees can yield everything that humans really need, except the minerals extracted directly from the earth. Trees can thrive where arable and grain crops would fail to grow. Wood is the fuel of most of the world's people. If burnt in efficient stoves, waste and pollution would be minimised. With careful management programmes wood can provide an indefinitely renewable resource. If animal farming were phased out, vast areas of land would be freed up for tree planting programmes - less land is needed to provide for a plant-based diet.

Trees as a food source

Only about 11% of the earth's land surface is cultivated, but it has been calculated that, by planting trees, three-quarters of the earth could provide materials to supply human needs. Trees are an amazing source of food: if the yield per hectare of different types of crops are compared, trees come out a long way ahead. Such abundance could contribute significantly to world food supplies.



Yields per hectare

Livestock: 0.2 tonnes
Cereals: 4 to 6 tonnes
Walnuts: over 29 tonnes
Carob: over 49 tonnes



Some trees also have edible leaves that can yield leaf protein through small scale manufacturing processes. If livestock farming and vast cereal monocultures were phased out, some of the land that would be released could be used for growing trees yielding food crops, timber for construction and fuel and materials for other uses, such as biofuels and fibres for cloth.

The MOVEMENT for COMPASSIONATE LIVING

Destruction of forests

Life on this planet could not survive without trees, yet vast tracts of forests across the globe have been - and are still being - destroyed, largely as a result of animal-based agriculture. Most recent global estimates suggest that 150,000 hectares - an area equivalent to the size of England and Wales are being destroyed each year. Since 1969, 25% of Central America's forests have been destroyed to create pasture for intensive cattle grazing concerns, and large areas of forest in Brazil have been cleared to grow soya crops. However, people in industrialised countries should not just stand back and complacently criticise the felling of tropical forests - they also need to be working to restore their own forests. The hazel, beech and oak trees that once covered many parts of Britain yielded far more protein than the sheep and cattle that now graze these deforested areas. Persistent grazing by farmed animals prevents the regeneration of natural forests.

Trees and the environment

Trees make a positive impact on the environment: they stabilise the soil, reduce erosion and desertification, and help to cleanse the air. Trees help to maintain the water cycle by reducing run-off surface water, so that water goes into underground water stores rather than running laden with soil into watercourses and the sea. As trees are permanent crops, their cultivation does not require regular ploughing which damages soil structure. Trees also add to the fertility of the soil - their roots bring minerals and trace elements from deep in the ground; tree leaves dropping onto the soil become incorporated as humus into surface layers. Some varieties of tree, such as alder, have nitrogen fixing bacteria in their roots which will also enrich soils.

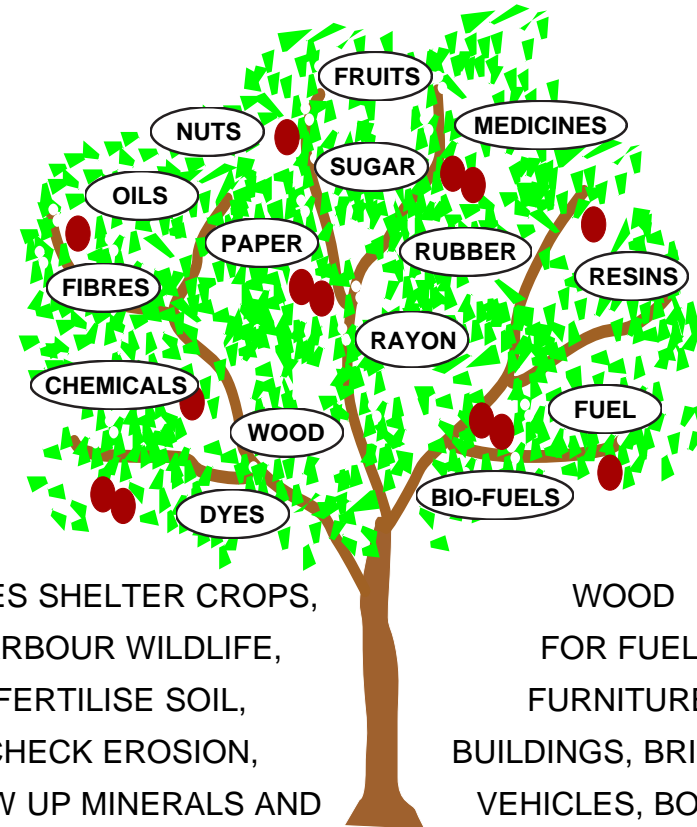
Most importantly, trees play a vital role in the battle to reduce global warming. Trees take in carbon dioxide and give out oxygen. Plankton in the oceans absorbs about half the CO₂ in the atmosphere, but trees also have enormous potential to store carbon in their tissues. While they live and their wood is used for long-lasting timber products, trees keep large amounts of carbon out of the atmosphere. When they are burnt or decay, they give out no more than they first took in.

With good management and with the replacement of trees as some are felled, forests have the capacity to act as permanent sinks for atmospheric carbon. Governments around the world are starting to acknowledge the role of trees in combating greenhouse gases and some major tree planting programmes are now underway to compensate for specific emission releasing facilities such as new coal fired power stations.

Planting trees for food and the environment

TREES

**TAKE IN CARBON DIOXIDE AND GIVE OUT OXYGEN,
TRANSPIRE WATER TO CLOUDS
AND PROMOTE RAINFALL**



TREES SHELTER CROPS,
HARBOUR WILDLIFE,
FERTILISE SOIL,
CHECK EROSION,
DRAW UP MINERALS AND
STABILISE WATER TABLES.

WOOD
FOR FUEL,
FURNITURE,
BUILDINGS, BRIDGES,
VEHICLES, BOATS,
HOUSEWARES, etc.

TREES CHECK GLOBAL WARMING

They could even reverse it if enough forests were established! Enough land would be available if livestock farming was phased out. Trees take in CO₂ and store carbon in their wood. When wood is burned, CO₂ returns to the atmosphere. However, if forests are of mixed species, and those grown for their wood are selectively felled and saplings immediately planted in their place, the forest unit would be a permanent sink for carbon.