

Plants

Man and Plants

Too much food or not enough food?

Plants are essential food for all living organisms, including man, to survive. In the Ecosystems section, we saw they are the basis of the food pyramid. Farming began 7-8,000 years ago, when men stopped living a nomadic life, began to live in stable communities, and started to produce food by selecting the plants that were fittest for periodical sowing and harvesting.

During the last century, the farming techniques have developed so much as to increase crops by almost five times. The increase in the availability of food has been, however, very different in the different countries and regions of the world. In developing countries, over 800 million people still suffer from hunger or malnutrition, while in industrialised countries more and more people are overeating or overweight. In both cases, this food imbalance negatively affects both human health and productivity. In fact, natural products have maintained their market share and are expected to even increase it over the next few decades. These products have the great advantage of being renewable: unlike modern plastics and man-made fibres, which are produced from non-renewable resources (oil, coal), they are not bound to disappear. A cotton plantation grows all over again every year, as well as a forest can renew itself, though more slowly, after the trees have been cut.

Agricultural development

The flora is an essential asset for man, since it is a renewable resource and a source of basic products for the agricultural world and for several industrial and commercial sectors. As for many other resources, though, to be able to exploit them as efficiently as he could, man had to apply work and technology to plants and lands. The result was the development of farming. The basic role of farming is to produce more and more food and raw materials (wood and fibres).

Until the 1950s, farming was mainly based on the conservation of the organic matter contained in the soil, which made the plants grow and reproduce. This goal was achieved by following some simple rules that were passed on from one generation to the next: for instance, the rotation of cultivations and the periodical rest of the land or the fertilisation of the soil with manure.

Since the Fifties, the need to obtain more and better crops urged the industrialised countries to develop modern farming methods which are more and more dependent on external help (machinery, fertilisers, irrigation systems, plant chemicals, etc.) and which are based on very specialised cultures (growing of single species).

Herbs and medicine

Herb-based medicine (phytotherapy) is the oldest and most natural treatment for the body. It involves the use of plants or parts of plants fit to treat specific ailments. Even now, all over the world, most drugs are made of vegetal substances and many synthetic products are prepared by reproducing in the laboratory environment the active agents contained in plants. The last few years have seen the spreading of "flower therapy" for the treatment of stress, eating disorders, anxiety and sleeplessness. "Bach Flowers" are most commonly used. They are 38 natural essences extracted from Welsh wild flowers that have healing properties.

Natural and synthetic fibres

Plants are for man a source of important raw materials: textile fibres, cellulose (to make paper) and wood. Thirty years ago, the experts were convinced such resources would disappear, since they would not have been able to withstand competition from man-made materials. In fact, natural products have maintained their market share and are expected to

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