



SUSTAINABLE AGRICULTURE



What does the idea of sustainable agriculture mean?

It means ecologically healthy, long-term agriculture, that is, agriculture which does not pollute but is economically viable, socially acceptable and self-supporting, thus allowing this type of agriculture to be permanently and unconstrainedly adopted.

Moreover, it is based on exploitation of the authentic natural special characters of fauna and flora, jointly with the natural features of the region and neighbouring enterprises, to provide a system of production which supports the existence of

both towns and villages, by using the smallest possible amount of land for the greatest anticipated production.

What are the essential principles which govern the achieving of sustainable agriculture?

1 Rigorous planning, and coherent ordering

Sustainable agriculture interacts with plants, animals, human establishments and every kind of infrastructure (such as water supply, electrification and communications systems). But sustainable agriculture is not part and parcel of these elements, but refers to the interactive relations that may be set up between these elements or these component parts, according to the method of ordering these parts in the area to be exploited.

Planning and design are fundamental for sustainable agriculture operations. For example, let us say that dams and water towers must be situated high up so that the water can run naturally downhill to irrigate fields or be supplied to towns without pumps being necessary.

Another example: houses must be protected by hedges, but these windbreaks must not prevent the sun's rays from entering the rooms, especially in winter. Similarly, the siting of the garden must be between the house and the farmyard, so that poultry can feed on garden waste when returning to the chicken run; the droppings will serve to fertilise the garden.

2 Each element may have several uses

Let us take dams, for example: these hold back water to use it later in irrigation, provide drinking water for animals or town residents or to use it to fight fires, for fish farming and to breed other water animals.

The choice of trees and shrubs, and the rational way they are planted right round the house, will protect houses from the

wind, provide wood for heating, and produce flowers for bees.

3 Multiplying sources guarantees sustainability

Essential needs such as water, food and energy must come from more than one source, so that requirements can be satisfied permanently. Heating by solar energy or electricity must be backed up by the use of wood to offset the absence of sunny periods or a lasting electricity cut.

4 Choose easy solutions

Places which need frequent visits, such as the farmyard or vegetable garden, must be placed near the house, whilst fruit trees, the stable and the place where the agricultural implements are kept may be further off, since they do not require numerous visits.

5 Make use of plants as well as animals

Plants as well as animals can provide energy and do certain jobs. Chickens and goats, for example, may be used as «animal mowers» to cut weeds, clear the land of brushwood, and simultaneously enrich the soil.

It is also possible to use plants and animals to fight against certain disasters. Spring flowers attract insects which feed on the fungi which attack garden plants. Pools of water serve as a refuge for insect-eating toads and frogs. Trees and vines planted to a well-designed plan provide shade, and act as windbreaks and firebreaks.

6 Distribution of nutritional products

You must make sure that nutritional produce does not leave the farm and that left-overs after meals are turned into nutrients. Pick up cut grass and leaves to use them as bedding to protect the roots of young plants from excessive heat or cold.

7 Economize water

Water is a rare commodity in the Arab world. Try to make the most of it by reducing outflow, by spreading water horizontally over the greatest possible surface area, which lessens soil erosion and allows the water to penetrate the soil to a greater depth. Terraces are beneficial in that they allow tiny dams to be created, allowing water to be kept back and to penetrate the soil. Keep all rainwater and use it wisely.

8 Make the most profit, by using operational mini-systems

It is not enough to diversify plants and animals in your farm or garden. Good planning will take account of the functional relations between living things. Concentrate your attention on systems which do not take up much room but exploit it to the full, resulting in reduced energy consumption and maximum yield. Choose manual equipment for little areas instead of electric chainsaws and mowers.

9 Diversify your activities

To become as self-sufficient as possible, and to keep your land fertile and not exhausted, you should diversify crops and practice crop rotation.

Sources: Environmental Facts (7: sustainable agriculture), produced by a group of NGOs.

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