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| Glossary |  |
| Chapter 12 |  |
| agrobiodiversity | The genetic variety of plant and animal species used on farms to produce food. Compare biodiversity. |
| agroforestry | Planting trees and crops together. |
| alley cropping | Planting of crops in strips with rows of trees or shrubs on each side. |
| animal manure | Dung and urine of animals used as a form of organic fertilizer. Compare green manure. |
| aquaculture | Growing and harvesting of fish and shellfish for human use in freshwater ponds, irrigation ditches, and lakes, or in cages or fenced-in areas of coastal lagoons and estuaries or in the open ocean. See fish farming, fish ranching. |
| biofuel | Gas (such as methane) or liquid fuel (such as ethyl alcohol or biodiesel) made from plant material (biomass). |
| chronic malnutrition | Faulty nutrition, caused by a diet that does not supply an individual with enough protein, essential fats, vitamins, minerals, and other nutrients needed for good health. Compare overnutrition, chronic undernutrition. |
| chronic undernutrition | Condition suffered by people who cannot grow or buy enough food to meet their basic energy needs. Most chronically undernourished children live in developing countries and are likely to suffer from mental retardation and stunted growth and to die from infectious diseases. Compare chronic malnutrition, overnutrition. |
| compost | Partially decomposed organic plant and animal matter used as a soil conditioner or fertilizer. |
| conservation-tillage farming | Crop cultivation in which the soil is disturbed little (minimum-tillage farming) or not at all (no-till farming) in an effort to reduce soil erosion, lower labor costs, and save energy. Compare conventional-tillage farming. |
| contour farming | Plowing and planting across the changing slope of land, rather than in straight lines, to help retain water and reduce soil erosion. |
| crop rotation | Planting a field, or an area of a field, with different crops from year to year to reduce soil nutrient depletion. A plant such as corn, tobacco, or cotton, which removes large amounts of nitrogen from the soil, is planted one year. The next year a legume such as soybeans, which adds nitrogen to the soil, is planted. |
| desertification | Conversion of rangeland, rain-fed cropland, or irrigated cropland to desertlike land, with a drop in agricultural productivity of 10% or more. It usually is caused by a combination of overgrazing, soil erosion, prolonged drought, and climate change. |
| famine | Widespread malnutrition and starvation in a particular area because of a shortage of food, usually caused by drought, war, flood, earthquake, or other catastrophic events that disrupt food production and distribution. |
| feedlot | Confined outdoor or indoor space used to raise hundreds to thousands of domesticated livestock. |
| fish farming | Growing and harvesting of fish and shellfish for human use in freshwater ponds, irrigation ditches, and lakes, or in cages or fenced-in areas of coastal lagoons and estuaries or in the open ocean. See fish farming, fish ranching. See aquaculture. |
| food insecurity | Condition under which people live with chronic hunger and malnutrition that threatens their ability to lead healthy and productive lives. Compare food security. |
| food security | Condition under which every person in a given area has daily access to enough nutritious food to have an active and healthy life. Compare food insecurity. |
| fungicide | Chemical that kills fungi. |
| gene splicing | Insertion of an alien gene into an organism to give it a beneficial genetic trait. Compare artificial selection, natural selection. See genetic engineering. |
| genetically modified organism (GMO) | Organism whose genetic makeup has been altered by genetic engineering. |
| green manure | Freshly cut or still-growing green vegetation that is plowed into the soil to increase the organic matter and humus available to support crop growth. Compare animal manure. |
| green revolution | Popular term for the introduction of scientifically bred or selected varieties of grain (rice, wheat, maize) that, with adequate inputs of fertilizer and water, can greatly increase crop yields. |
| herbicide | Chemical that kills a plant or inhibits its growth. |
| high-input agriculture | Production of large quantities of crops and livestock for domestic and foreign sale; involves use of large inputs of energy from fossil fuels (especially oil and natural gas), water, fertilizer, and pesticides. Compare subsistence farming. See industrialized agriculture. |
| humus | Slightly soluble residue of undigested or partially decomposed organic material in topsoil. This material helps retain water and water-soluble nutrients, which can be taken up by plant roots. |
| hunger | Condition suffered by people who cannot grow or buy enough food to meet their basic energy needs. Most chronically undernourished children live in developing countries and are likely to suffer from mental retardation and stunted growth and to die from infectious diseases. Compare chronic malnutrition, overnutrition. See chronic undernutrition. |
| hydroponics | Form of agriculture in which farmers grow plants by exposing their roots to a nutrient-rich water solution instead of soil. |
| industrialized agriculture | Production of large quantities of crops and livestock for domestic and foreign sale; involves use of large inputs of energy from fossil fuels (especially oil and natural gas), water, fertilizer, and pesticides. Compare subsistence farming. |
| insecticide | Chemical that kills insects. |
| irrigation | Mix of methods used to supply water to crops by artificial means. |
| manure | Freshly cut or still-growing green vegetation that is plowed into the soil to increase the organic matter and humus available to support crop growth. Compare animal manure. See animal manure, green manure. |
| monoculture | Cultivation of a single crop, usually on a large area of land. Compare polyculture. |
| organic agriculture | Growing crops with limited or no use of synthetic pesticides and synthetic fertilizers; genetically modified crops, raising livestock without use of synthetic growth regulators and feed additives; and using organic fertilizer (manure, legumes, compost) and natural pest controls (bugs that eat harmful bugs, plants that repel bugs and environmental controls such as crop rotation). See sustainable agriculture. |
| organic farming | Growing crops with limited or no use of synthetic pesticides and synthetic fertilizers; genetically modified crops, raising livestock without use of synthetic growth regulators and feed additives; and using organic fertilizer (manure, legumes, compost) and natural pest controls (bugs that eat harmful bugs, plants that repel bugs and environmental controls such as crop rotation). See sustainable agriculture. See organic agriculture and sustainable agriculture. |
| organic fertilizer | Organic material such as animal manure, green manure, and compost applied to cropland as a source of plant nutrients. Compare commercial inorganic fertilizer. |
| overnutrition | Diet so high in calories, saturated (animal) fats, salt, sugar, and processed foods, and so low in vegetables and fruits that the consumer runs a high risk of developing diabetes, hypertension, heart disease, and other health hazards. Compare malnutrition, undernutrition. |
| pest | Unwanted organism that directly or indirectly interferes with human activities. |
| pesticide | Any chemical designed to kill or inhibit the growth of an organism that people consider undesirable. See fungicide, herbicide, insecticide. |
| plantation agriculture | Growing specialized crops such as bananas, coffee, and cacao in tropical developing countries, primarily for sale to developed countries. |
| polyculture | Complex form of intercropping in which a large number of different plants maturing at different times are planted together. See also intercropping. Compare monoculture. |
| salinization | Accumulation of salts in soil that can eventually make the soil unable to support plant growth. |
| shelterbelt | Row of trees or hedges planted to partially block wind flow and reduce soil erosion on cultivated land. See windbreak. |
| slash-and-burn agriculture | Cutting down trees and other vegetation in a patch of forest, leaving the cut vegetation on the ground to dry, and then burning it. The ashes that are left add nutrients to the nutrient-poor soils found in most tropical forest areas. Crops are planted between tree stumps. Plots must be abandoned after a few years (typically 2?5 years) because of loss of soil fertility or invasion of vegetation from the surrounding forest. |
| soil | Complex mixture of inorganic minerals (clay, silt, pebbles, and sand), decaying organic matter, water, air, and living organisms. |
| soil conservation | Methods used to reduce soil erosion, prevent depletion of soil nutrients, and restore nutrients previously lost by erosion, leaching, and excessive crop harvesting. |
| soil erosion | Movement of soil components, especially topsoil, from one place to another, usually by wind, flowing water, or both. This natural process can be greatly accelerated by human activities that remove vegetation from soil. Compare soil conservation. |
| soil salinization | Gradual accumulation of salts in upper soil layers that can stunt crop growth, lower crop yields, and can eventually kill plants and ruin the land. |
| strip-cropping | Planting regular crops and close-growing plants, such as hay or nitrogen-fixing legumes, in alternating rows or bands to help reduce depletion of soil nutrients. |
| subsistence farming | Production of enough crops or livestock for a farm family's survival. Compare industrialized agriculture, traditional intensive agriculture. See traditional subsistence agriculture. |
| terracing | Planting crops on a long, steep slope that has been converted into a series of broad, nearly level terraces with short vertical drops from one to another that run along the contour of the land to retain water and reduce soil erosion. |
| topsoil | The uppermost layer of soil as a soil's A-horizon layer. It contains the organic and inorganic nutrients that plants need for their growth and development. |
| traditional intensive agriculture | Production of enough food for a farm family's survival and a surplus that can be sold. This type of agriculture uses higher inputs of labor, fertilizer, and water than traditional subsistence agriculture. See traditional subsistence agriculture. Compare industrialized agriculture. |
| traditional subsistence agriculture | Production of enough crops or livestock for a farm family's survival. Compare industrialized agriculture, traditional intensive agriculture. |
| waterlogging | Saturation of soil with irrigation water or excessive precipitation so that the water table rises close to the surface. |
| weathering | Physical and chemical processes in which solid rock exposed at earth's surface is changed to separate solid particles and dissolved material, which can then be moved to another place as sediment. See erosion. |
| windbreak | Row of trees or hedges planted to partially block wind flow and reduce soil erosion on cultivated land. |

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