Irrigation and drainage systems in agriculture

Irrigation is artificial application of water to growing crops to substitute and/ or supplement rainfall. Choice of an irrigation system depends on availability of water, slope of land, the soil type, type of crop and the size of farm. Irrigation is important as it helps soften the soil for easy tillage, provides moisture in the soil for root absorption, cools the soil and enables well establishment of crops even in scarcity of rain.

Irrigation system types

Surface irrigation. This is where water from rivers, dams or springs is allowed to flow by gravity along the surface of the plant. This could be in the form of channels, flooding, furrows, control dams etc.
Subsurface irrigation. This is where water is applied below the soil surface .
Overhead irrigation This is where water is applied on the farm land above the surface of the soil. This can either be sprinkler or drip irrigation.

Drainage systems

This is the process by which excess water in the soil is removed artificially to promote good farming activities.
Drainage can be surface drainage where excess water is removed from the surface of the land using constructed open ditches.
Underground drainage is the removal of excess water using pipes that are dug and fixed under the soil.