

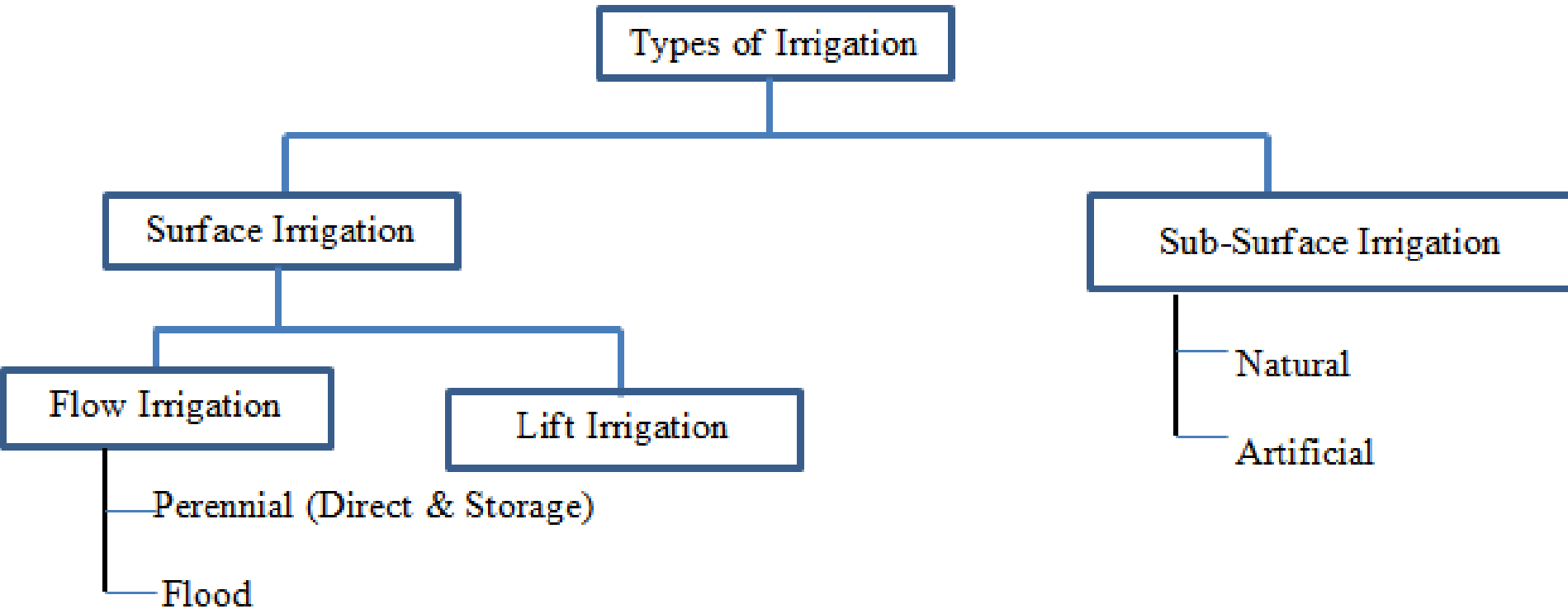
Unit I - INTRODUCTION

Topic 2 – Modes of Irrigation

?????



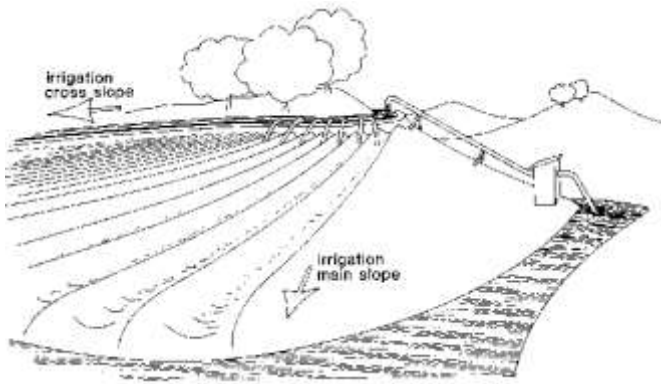
Modes/Types/Methods of Irrigation



Surface Irrigation



of



Slope



Run and time required



Size and shape of water course

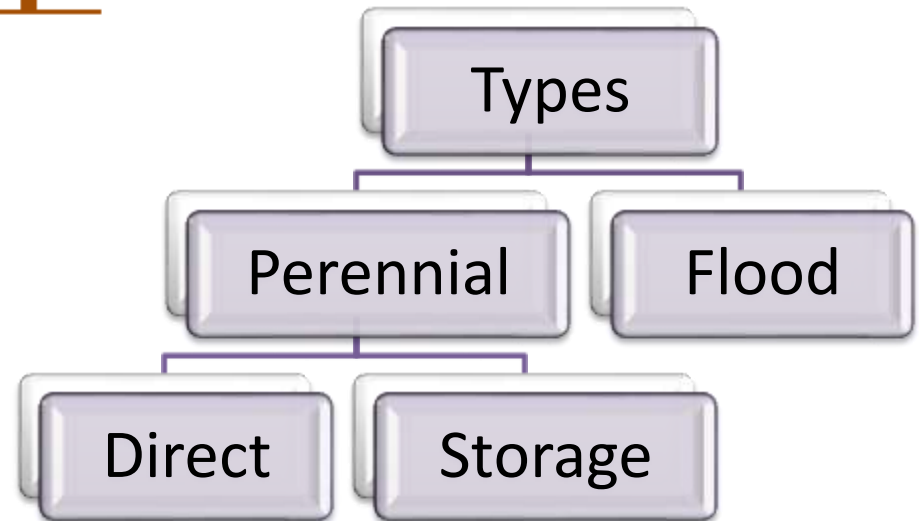
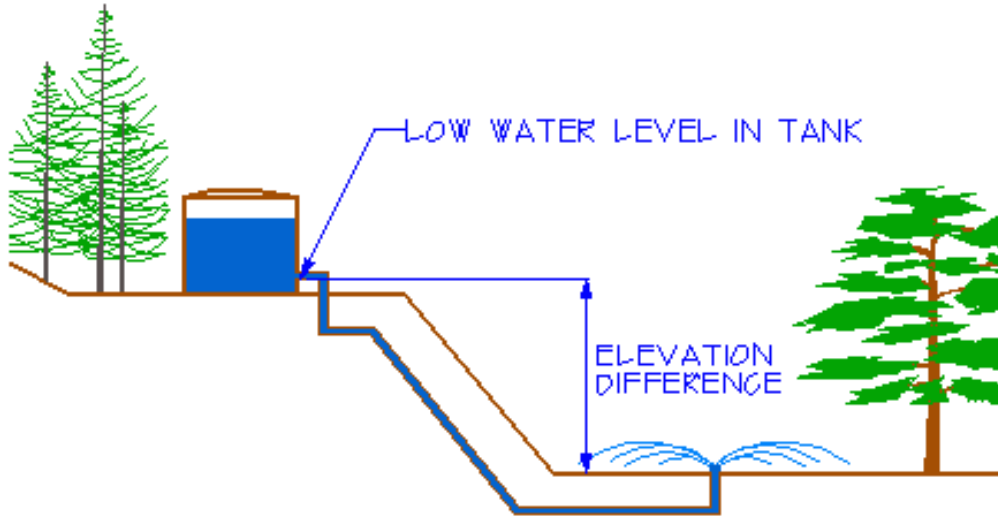


Field erosion

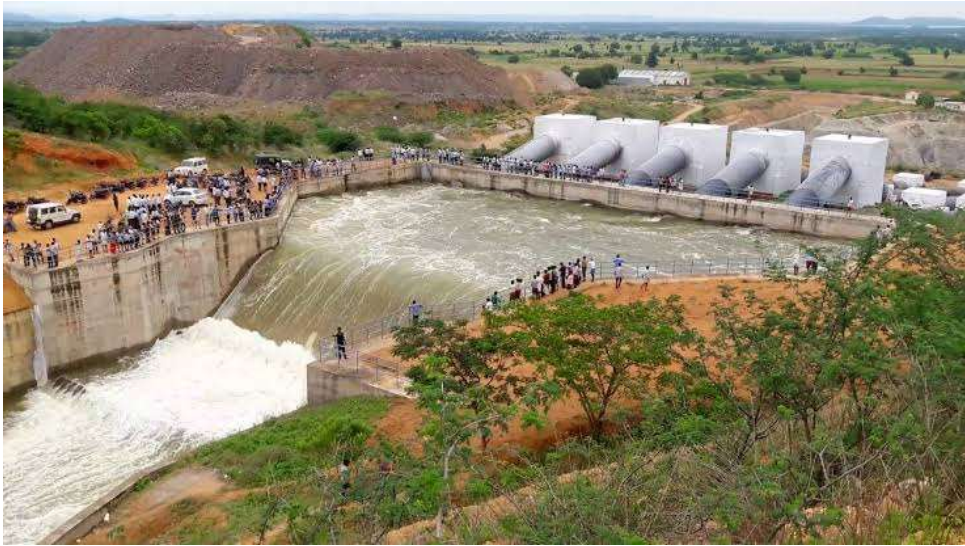
Advantages of surface irrigation

- Storing required amount of water in the root-zone-depth.
- Reduces the wastage of irrigation water from the field in the form of run-off water.
- Reduces the soil erosion to minimum.
- Helps in applying uniform application of water to the fields.
- Amount of manual labour required is less.
- Suitable to the size of the field
- Minimum land for making ditches, furrows, strips, etc.

Flow Irrigation



Lift Irrigation



Activity

Save Your Balloon

Sub-Surface Irrigation

Applying water from beneath the soil surface either by constructing trenches or installing underground perforated pipe lines or tile lines



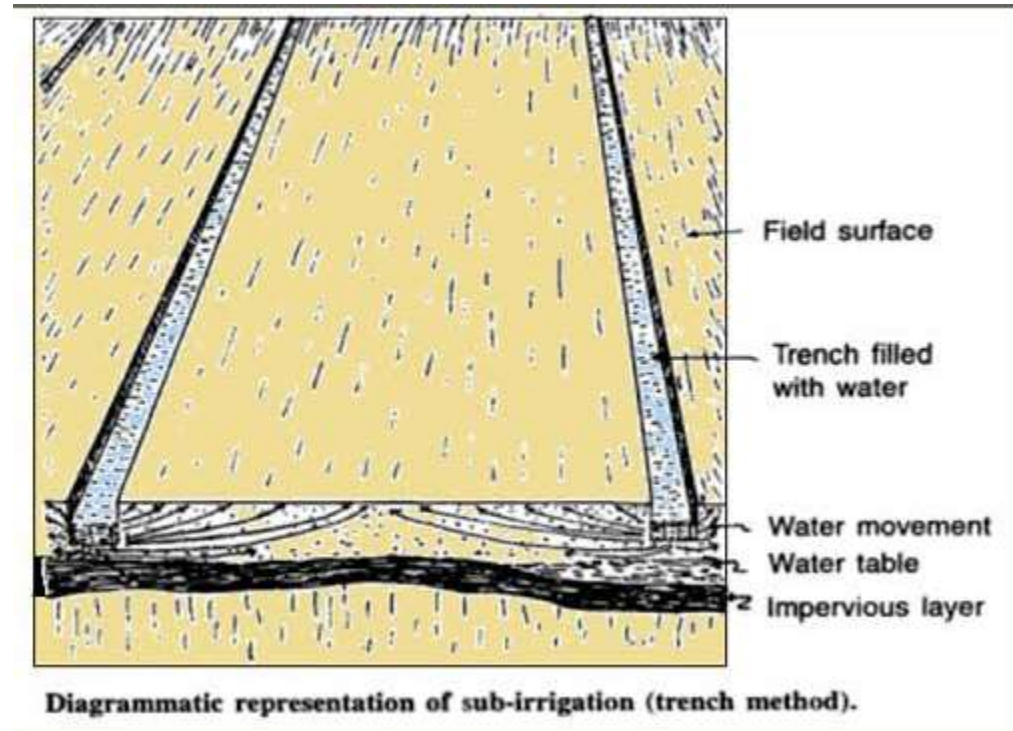
Pre-requisite for sub-irrigation

- High water table or an impervious sub-soil
- Highly permeable root zone soil
- Uniform texture permitting
- Irrigation water is scarce and costly
- Soil should not have any salinity problem.

Construction of sub-irrigation

A series of ditches or trenches 60 to 100 cm deep and 30 cm wide, the two sides of which are made vertical.

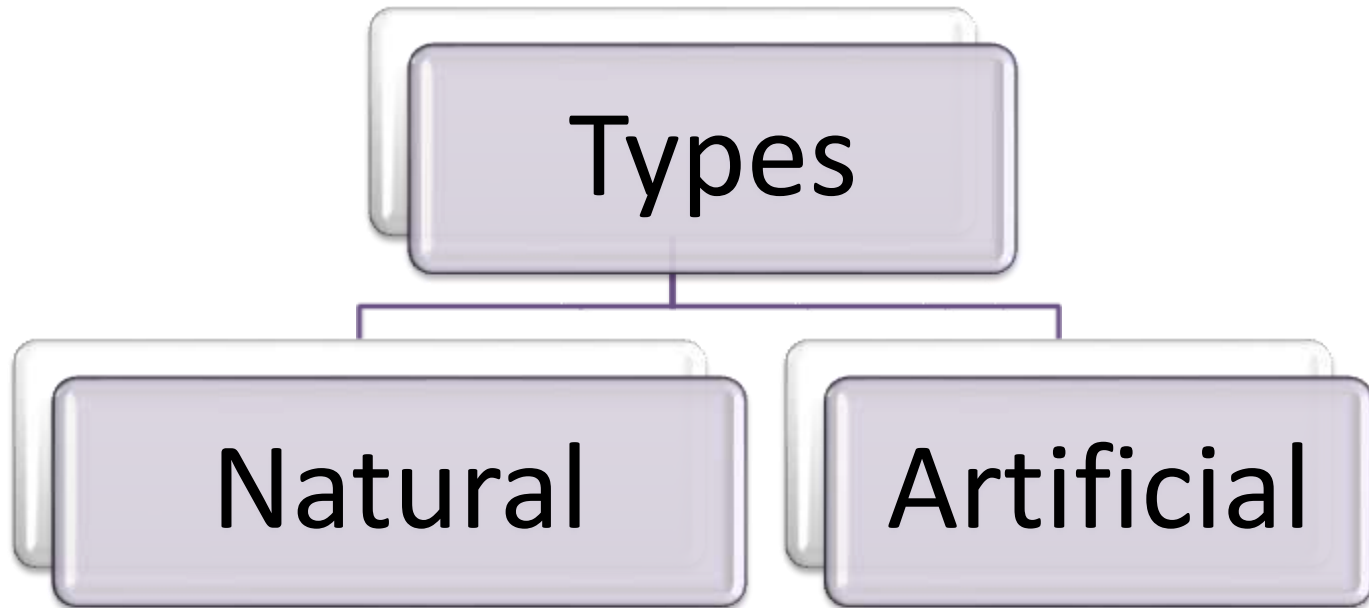
Ditches are spaced 15 to 30 m.



Advantages of sub-irrigation

- Soil water can be maintained at a suitable tension
- Evaporation loss from soil surface is minimized
- Cost of water application is very low and
- Used for soils having a low water holding capacity and a high infiltration rate

Types of sub-irrigation



Summary

- Surface Irrigation, types and its advantages
- Flow irrigation
- Lift Irrigation
- Sub surface irrigation, types and its advantages