

B.Sc. II Semester

Paper: BBT 2002

Unit II

Lecture IV: Mineral Nutrition

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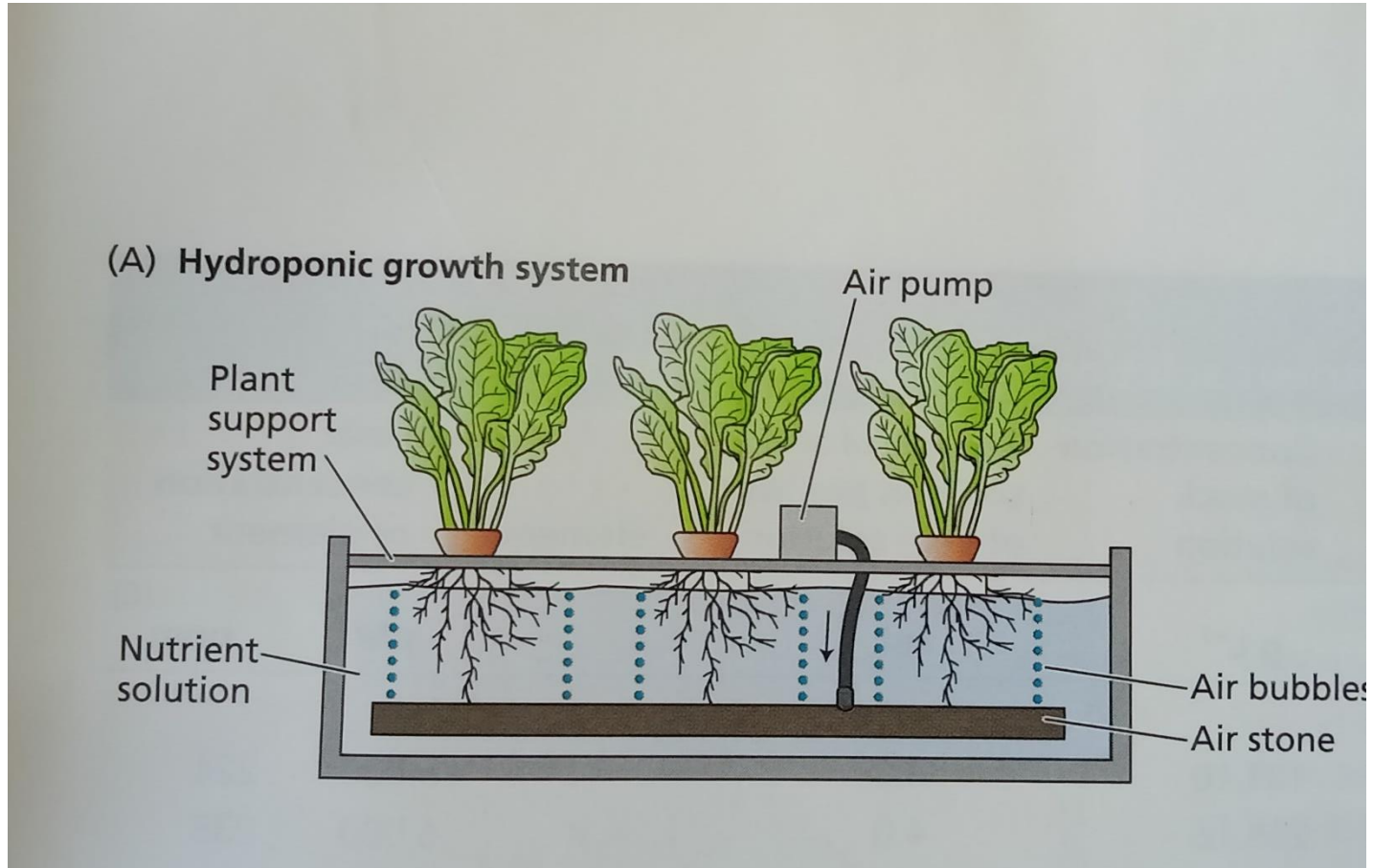
Identification of Essentiality of Nutrients

- To determine that the element is essential requires that plants be grown under experimental conditions under in which only the element under investigation is absent.
- It requires growing plants with their roots immersed in a **nutrient solution** containing only inorganic salts.
- The technique of growing plants with their roots immersed in a nutrient solution without soil is called **Solution Culture** or **Hydroponics**

Techniques Used in Nutritional Studies

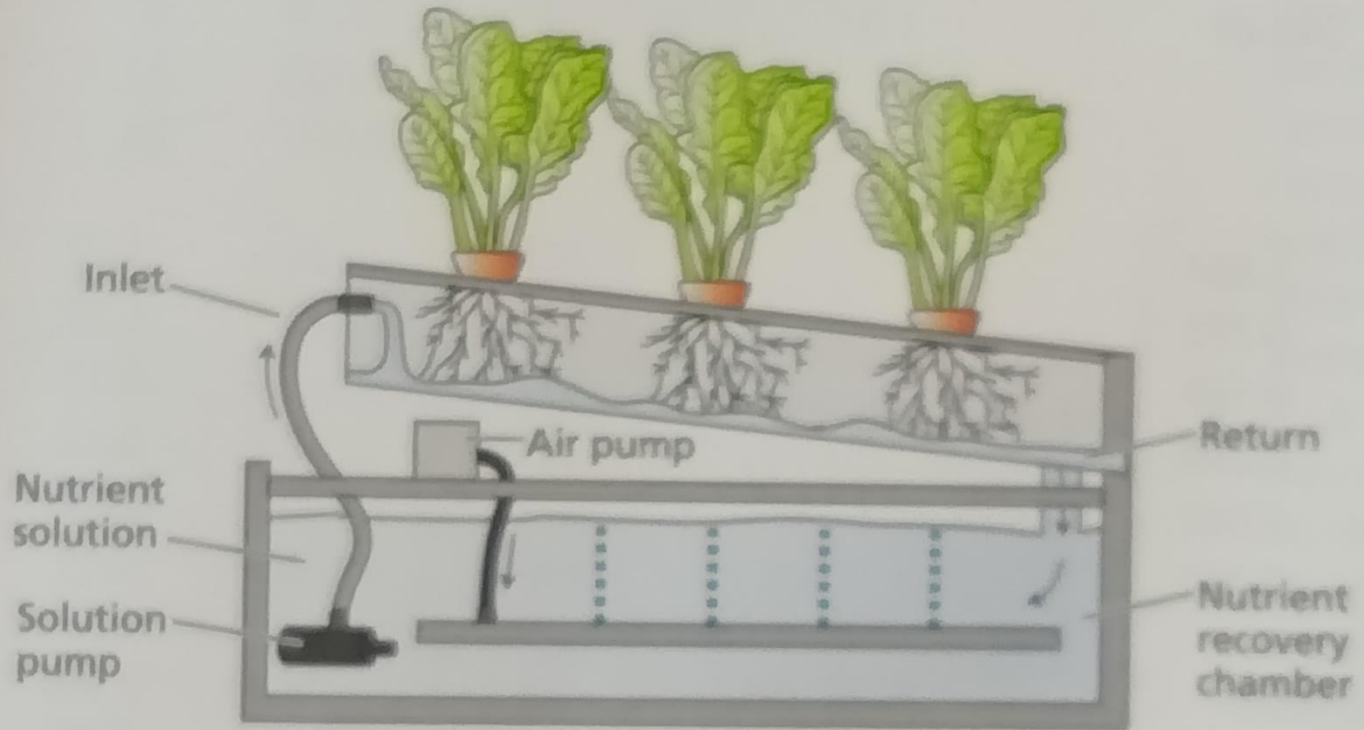
- A. Hydroponic growth system
- B. Nutrient film growth system
- C. Aeroponic growth system
- D. Ebb and flow system

Hydroponic Growth System



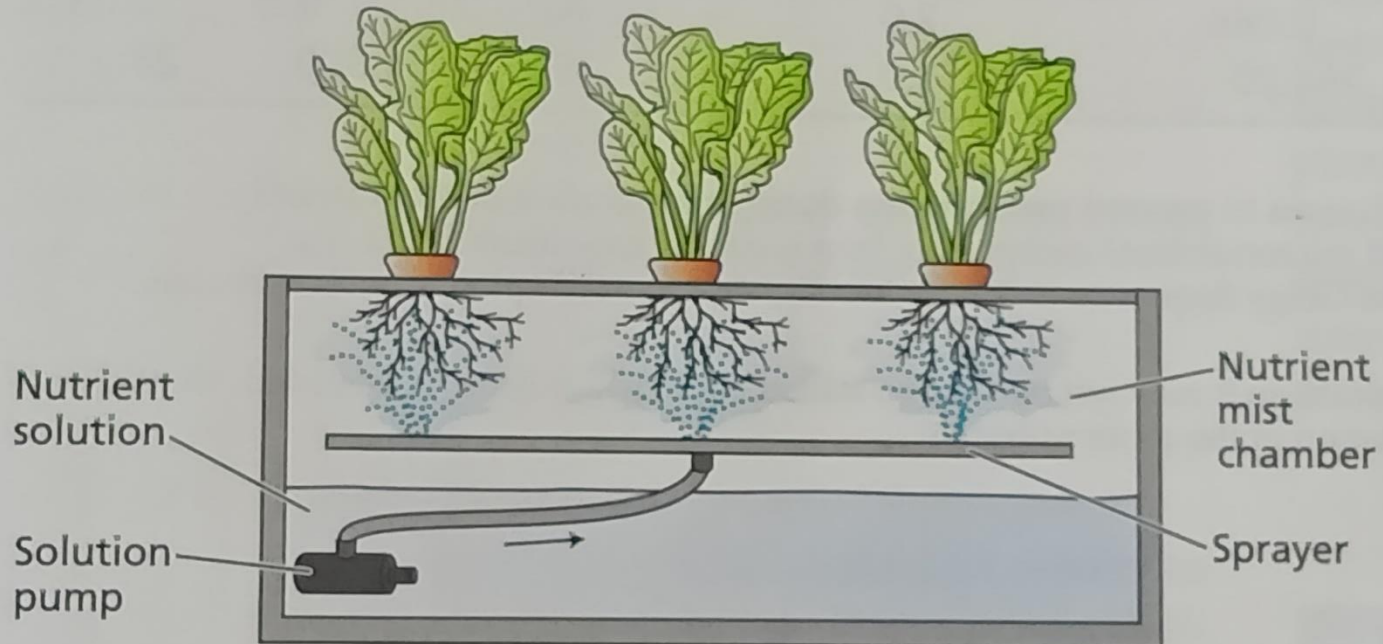
Nutrient Film Growth System

(B) Nutrient film growth system



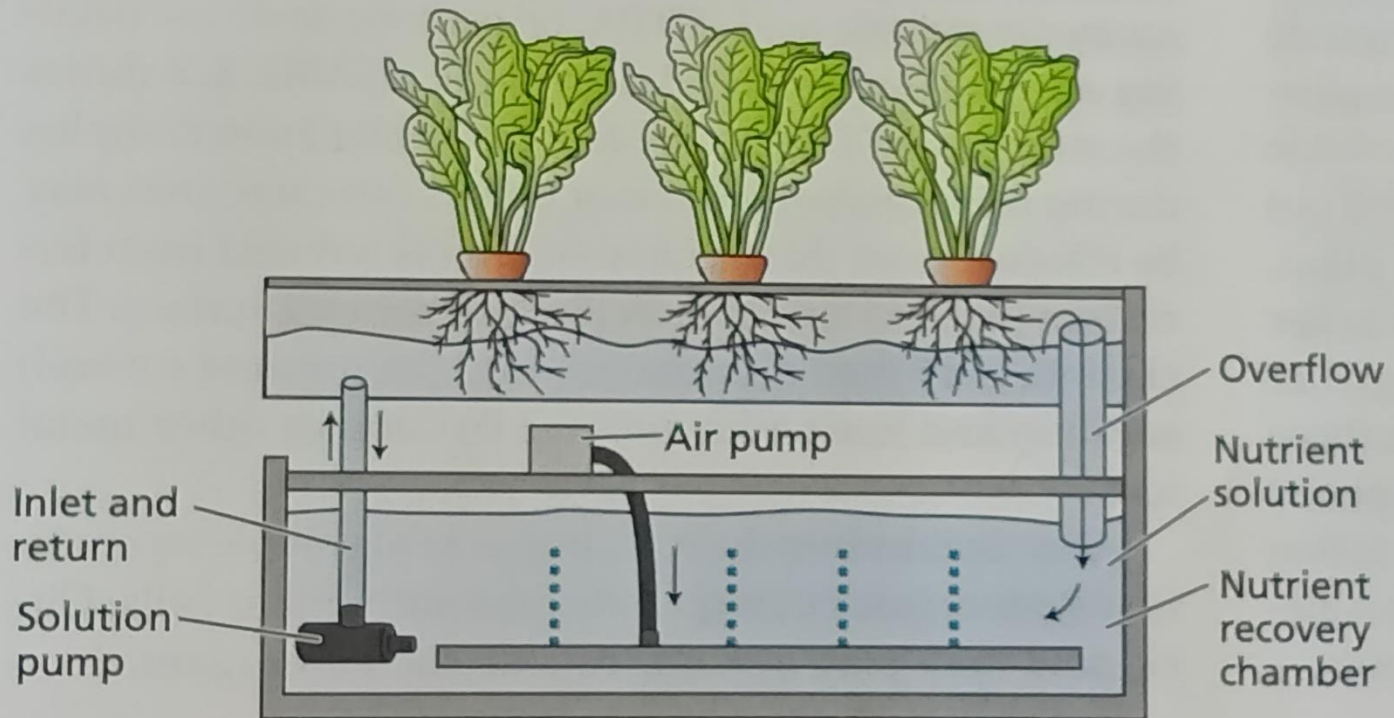
Aeroponic Growth System

(C) Aeroponic growth system



Ebb and Flow System

(D) Ebb and flow system



Lecture V