

AMAG24 MICRO IRRIGATION SYSTEM DESIGN

UNIT-1 PAST, PRESENT AND FUTURE NEED OF MICRO IRRIGATION SYSTEMS

- 1.1 Role of Govt. for the promotion of micro irrigation in India,
- 1.2 Merits and demerits of micro irrigation system.

UNIT-2 TYPES AND COMPONENTS OF MICRO IRRIGATION SYSTEM

- 2.1 Micro irrigation system design, installation, and maintenance.
- 2.2 Sprinkler irrigation - types, planning factors, uniformity and efficiency,
- 2.3 Laying pipeline, hydraulic lateral, sub mains and main line design, pump and power unit selection.

UNIT-3 DRIP IRRIGATION

- 3.1 Potential, automation, crops suitability.
- 3.2 Fertigation- Fertilizer application criteria,
- 3.3 Suitability of fertilizer compounds,
- 3.4 Fertilizer mixing, injection duration,
- 3.5 Rate and frequency, capacity of fertilizer tank.

UNIT-4 QUALITY CONTROL IN MICRO IRRIGATION COMPONENTS

- 4.1 Design and maintenance of polyhouse,
- 4.2 Importance and application of polyhouse.

UNIT-5 PROSPECTS OF WASTE LAND DEVELOPMENT

- 5.1 Hills, semi-arid, coastal areas,
- 5.2 Water scarce areas, Benefit and Cost analysis.

Reference Books:

1. Larry, G.J. (1982). Principles of Farm Irrigation System Design. John Wiley Sons, New York.
2. Michael, A.M. (1986). Irrigation Theory and Practice. Vikas Publishing House, New Delhi.
3. Sivanappan, R.K. (1987). Sprinkler irrigation. Oxford & IBH Publishing Company, New Delhi.