

**AGRO 103 - WATER MANAGEMENT INCLUDING  
MICRO IRRIGATION (2+1)**

01. DEVELOPMENT OF IRRIGATION IN INDIA - WATER RESOURCES, IRRIGATION POTENTIAL AND IRRIGATION SYSTEMS OF INDIA AND TAMIL NADU
02. ROLE OF WATER IN PLANT GROWTH – HYDROLOGICAL CYCLE - WATER IN SOIL - PLANT - ATMOSPHERE CONTINUUM - ABSORPTION OF WATER AND EVAPOTRANSPIRATION
03. SOIL WATER MOVEMENT - SATURATED AND UNSATURATED FLOW AND VAPOUR MOVEMENT - SOIL MOISTURE CONSTANTS AND THEIR IMPORTANCE IN IRRIGATION
04. SOIL MOISTURE MEASUREMENT
05. MOISTURE EXTRACTION PATTERN OF CROPS- SOIL MOISTURE STRESS - PLANT WATER STRESS -EFFECTS ON CROP GROWTH
06. CROP WATER REQUIREMENT - POTENTIAL EVAPOTRANSPIRATION (PET) AND CONSUMPTIVE USE- FACTORS AFFECTING CROP WATER REQUIREMENT - CRITICAL STAGES – WATER REQUIREMENT OF DIFFERENT CROPS
07. *Water requirement for different crops: Irrigation schedules for field crops*
08. WATER BUDGETING AND ITS IMPORTANCE - IRRIGATION SCHEDULING - APPROACHES
09. WATER USE EFFICIENCY (WUE) & INDICES
10. AGRONOMIC PRACTICES FOR USE OF PROBLEM WATER - SALINE, EFFLUENT, SEWAGE WATER
11. WATER MANAGEMENT FOR PROBLEM SOILS
12. Water Management Technology Options for Non-Rice Crops
13. COMMAND AREA DEVELOPMENT- CONTINGENT CROP PLAN IN MAJOR IRRIGATION PROJECTS OF TAMIL NADU - DRAINAGE – IMPORTANCE AND METHODS
14. WATER LOGGING AND FIELD DRAINAGE
15. DRIP IRRIGATION AND FERTIGATION
16. SPRINKLER IRRIGATION

17. PLASTIC MULCHING FOR CROP PRODUCTION

18 & 19. METHODS OF IRRIGATION - SUITABILITY, ADVANTAGES  
AND LIMITATIONS