

Advanced Irrigation

Catalogue Number	77-3104-0002
Category	Agriculture
Duration	15 Hours

Lesson 1: Hydraulics and Irrigation

- Hydraulics
- Data Collection
- Irrigation System Overview
- The Pumping Unit
- Supply Pipelines
- Quiz
- The Control Head
- Task 1: Demonstrating Screen Mesh Filters
- Fertilizer Tank Planning
- Task 2: Fertilizer Tank Planning
- Task 3: Observation of Irrigation in Practice
- Review Test 1 Quiz

Lesson 2: Ultra-low Irrigation Systems

- The Need for Ultra-low Irrigation Systems
- Advantages of Ultra-Low Rate Irrigation
- Quiz
- Technology of Ultra-low Rate Irrigation
- Spitters (Mini-sprinklers)
- Mini-drippers
- Limitations of Mini-sprinkler Systems
- Task 1: Research
- Review Test 2 Quiz

Lesson 3: Filtration

- Types of Filters
 - Screen (Strainer) Filters
 - Disk Filters
 - Media Filters
 - Sand Separators
 - Gravity Flow Filters
 - Suction Screen Filters
- Task 1: Commercial Products
- Quiz
- Filter Characteristics
- Operation and Maintenance
- Filter Location
- Complementary Water Treatment
- Water Quality
- Review Test 3 Quiz

Lesson 4: Irrigation with Recycled Water

- Advantages of Water Recycling
- Salinity
- Water Quality
- Quiz
- Recycling and Reuse of Water
- Wastewater Treatment
- Task 1: Water Analysis
- Task 2: Irrigation Suitability
- Task 3: Wastewater Analysis
- Review Test 4 Quiz

Lesson 5: Irrigation Automation

Irrigation Regime

Automation in Irrigation

The Field Unit

Quiz

The Computer

New Developments

Task 1: Irrigation Automation Product Research

Review Test 5 Quiz

Post-test: Advanced Irrigation Quiz