

# The Theory of AutoAgronom

Catalogue Number	77-8100-1012
Category	Agriculture
Duration	15 Hours

## Lesson 1: Introduction to AutoAgronom

Theoretical Basis for the AutoAgronom System  
The History of AutoAgronom  
What is the AutoAgronom System?  
Structure of the Root, the Water and Mineral Intake  
Parameters Affecting the Plant Water Loss  
How Does AutoAgronom Maintain the Water Balance  
Task: Roots Behavior in Drip Irrigation  
Review Test 1 Quiz

## Lesson 2: AutoAgronom System Physical Basis

Physical Principles  
Oxygen Level in Soil Solution  
Water Movement in Soil Solution  
Application to the AutoAgronom System  
Task: Water Movement Types and Irrigation Methods  
Review Test 2 Quiz

## Lesson 3: Irrigation in the AutoAgronom System

Soil Moisture Tension and Irrigation Management  
Soil Wetting  
Control of Total Water Quantity  
Task: The Effect of Unregulated Drip Irrigation on Plants  
Review Test 3 Quiz

#### **Lesson 4: Fertilization Management**

Importance of the Fertilization Control

Fertilization Management Objectives

Control of Temperature, Acidity, Electrical Conductivity, and Nitrates

Fertilization Management Decisions

Implementation of the Fertilization System in the AutoAgronom

Task: Effects of Fertilizer Concentration and Fertilization Method

Review Test 4 Quiz

Review Test 5 Quiz

#### **Lesson 5: The AutoAgronom Revolution**

Principles of the AutoAgronom Revolution

Advantages of AutoAgronom

Task: Root and Rootlet Development in Sunflower Saplings

#### **Post-test: The Theory of AutoAgronom**