

GARDEN DESIGN



ACADEMY

Soil Management (Horticulture)

Duration (approx) 100 hours

Qualification Statement of Attainment

"It may be obvious to most that healthy soils produce healthy plants, but what is a healthy soil when it comes to crop production? This course goes deep into the chemical and physical aspects of soil composition, testing, and management to provide the student with the necessary skills to manipulate soils for optimal crop yields."

Lesson Structure

There are 8 lessons in this course:

1. Physical & Chemical Properties Of Soils
2. Soil and Plant Tissue Test Methods
3. Soil Science and Health
4. Container Growing
5. Land Degradation & Other Soil Problems
6. Soil Management Applications
7. Organic Techniques of Soil Management
8. Soils and Managing Earthworks

Each lesson culminates in an assignment which is submitted to the school, marked by the school's tutors and returned to you with any relevant suggestions, comments, and if necessary, extra reading.



Aims

- To describe the significance of different physical and chemical properties of soil, in relation to the growing of plants.
- To correctly extract samples of soil, appropriate to different situations; and then conduct a range of simple tests to determine varying characteristics of the sample taken.
- To further explain the characteristics of a soil, scientifically; and relate those characteristics to the capacity of a soil to grow plants.
- To recommend appropriate selection and management of potting and other alternative media for growing plants in containers.
- To diagnose and recommend the treatment of a variety of soil degradation problems. Understanding of the principles of sustainable soil management
- To determine appropriate management programs for different soils in horticultural situations.
- To recommend soil management practices which are not going to cause a degradation of soil quality.
- Explain the methods used in managing earthworks in a way which is sensitive to soil condition.

What You Will Do

- Identify evaluate soil structural problems in the field
- Build a compost heap and monitor its decomposition process
- Perform simple experiments to evaluate fertilisation rates and methods
- Define and describe soil properties and processes
- Perform simple tests and field analyses on soil
- Identify nutrient deficiencies
- Evaluate the attributes of various mulches
- Analyse the impacts of earthworks and earth working machinery on soil and landscape
- Analyse the effects of different soil management methods.
- Identify soil and land degradation
- Propagate and grow plants in containers
- Identify and evaluate soil degradation minimisation programs and methods