

Gujarat University, Ahmedabad
Elective Paper: Soil and Plant Nutrition

Unit- I Importance and Soil Characteristic

Importance, origin, classification and characteristics of soil

Unit -II Soil testing and amendments

Soil sampling, analysis and fertility, Fertilizers, chemical- organic, conservation

Unit -III Plant nutrition

Essential elements, deficiency symptoms, soil-root-microbe interaction, biological nitrogen fixation

Unit –IV Modern approaches

Soil-less cultures, nutrient solution, mycorrhiza, plant assimilation, tillage and sustainable agriculture

Suggested reading:

1. E J Plaster Soil Science, Cengage publication New Delhi (2009)
2. L Taiz and Zeiger E, Plant Phycology, Sinaure Association, Marsachusetts (1998)
3. Noggle G. R. and Fritz G. J. Introductory Plant Physiology, Prentice-Hall of India, New Delhi (1992)