



RCETAE003 - Crop nutrient management

Course outcomes:

- Students will get knowledge on different crop nutrient management practices.
- Students completing this course would have acquired knowledge on integrated crop nutrient management and establishment procedure.
- Students will be able to delineate their role in integrate weed, pest and pathogen management.

Syllabus:

UNIT I

Inorganic Fertilizer: Types of Fertilizers based on Ingredient (Straight, Complex and Mixed Fertilizers) and based on Physical Form (Solid and Liquid Fertilizers) Computation of amount of Fertilizer, Micronutrients on the basis of Percentage of Nutrient and Doses for different Major Crops

UNIT II

Qualitative testing of fertilizers for impurities/ adulteration, Preparation of Fertilizer solution for foliar spray, Concept of Soil fertility, Soil Health and Role of Organic Manure, Identification of different types of fertilizers, micronutrients, soil amendments etc. Environmental impact of excessive use of fertilizer application and Preventing measure to avoid the soil fertilizer erosion

UNIT III

Fertilizer Control Act-1985, Its important amendments, Handling, storage and transportation of fertilizer and Function of POS machine for fertiliser dealers.

UNIT IV

Different Microbial/ Bio-inoculant/ Bio- Fertilizer: Rhizobium, Azotobacter, Phosphate solubilizers, Azospirillum, Blue Green Algae, Bio-liquid manure (Panchagavya etc), Method of application of different Bio-fertilizer Doses of bio- fertilizer; Do's and Don'ts in application of Bio-fertilizer

Reference Text Books:

1. The Nature and Properties of Soils by Brady and Weil.
2. Soil fertility and fertilizers by Havlin, Tisdale, Nelson, and Beaton.