

**Core Course VI: Economic Botany**

*The objective of this course is to expose the students on various economically important plants and plant products*

(Credits: Theory-4, Practical-2)

**THEORY**

Lectures: 60

- Unit 1: Origin of Cultivated Plants** (6 lectures)  
Concept of Centres of Origin, their importance with reference to Vavilov's work. Indigenous Knowledge System (IKS). Examples of major plant introductions; Crop domestication and loss of genetic diversity; evolution of new crops/varieties, importance of germplasm diversity.
- Unit 2: Cereals** (6 lectures)  
Wheat and Rice (origin, morphology, processing & uses); Brief account of wheat.
- Unit 3: Legumes** (6 lectures)  
Origin, morphology and uses of Chick pea, Pigeon pea and fodder legumes. Importance to man and ecosystem.
- Unit 4: Sources of sugars and starches** (4 lectures)  
Morphology and processing of sugarcane, products and by-products of sugarcane industry. Potato – morphology, propagation & uses.
- Unit 5: Spices** (6 lectures)  
Listing of important spices, their family and part used. Economic importance with special reference to fennel, saffron, clove, cinnamomum, cardamom and black pepper
- Unit 6: Beverages** (4 lectures)  
Tea, Coffee (morphology, processing & uses)
- Unit 7: Sources of oils and fats** (8 lectures)  
General description, classification, extraction, their uses and health implications groundnut, coconut, linseed, soybean, mustard and coconut (Botanical name, family & uses). Essential Oils: General account, extraction methods, comparison with fatty oils & their uses.

- Unit 8: Natural Rubber** (3 lectures)  
Para-rubber: tapping, processing and uses.
- Unit 9: Drug-yielding plants** (8 lectures)  
Therapeutic and habit-forming drugs with special reference to *Cinchona*, *Rawolfia*, *Andrographis*, *Aloe vera* and *Phyllanthus* (Morphology, processing, uses and health hazards).
- Unit 10: Timber plants** (3 Lectures)  
General account with special reference to teak, sal, pine & sisu.
- Unit 11: Fibers** (3 lectures)  
Classification based on the origin of fibers; Cotton, Coir and Jute (morphology, extraction and uses).
- Unit 12: Aromatics and Petrocrops** (4 lectures)  
General account with special reference to *Aquilaria*, *Cymbopogon*, *Vetiveria*, *Pogostemon*, *Jatropha* and *Ricinus*.