

Department of Botany, University of Delhi

- **Edible and non-edible oils:** Classification of oils, Oil yielding plants, processing and purification of different edible oils such as mustard, olive, sunflower oil, safflower peanut oil; transgenic approaches and constraints for improvement in different oils.
- Non-edible oils; such as Jojoba (*Simmondsia chinensis*), *Sesamum indicum* oil, Linseed oil, *Eucalyptus* oil, *Citrus* oil, etc.
- Essential oils; Lavender oil, rosemary oil, almond oil, clove oil cinnamomum oil, etc.
- **Plant-based biofuels e.g.,** Difference between first and 2nd generation biofuels, *Jatropha*, *Pongamia*, *Zea mayze*, *Madhuca*, etc. Extraction and economic viability; application as alternate source of diesels.

UNIT-IV

- **Plants as a source of timber:** e.g., *Tectona grandis*, *Salix* sp., *Dalberia sisso* (sheesham) and fuel wood, type and resources.
- **Fibre yielding plants:** Cotton (*Gossypium* sp.), Jute (*Corchorus* sp.), sun-hemp (*Crotalaria* sp.) with special reference to current advances pertaining to their improvement through breeding and genetic transformation e.g., Bt cotton.
- **Plants used for Horticulture, floriculture & ornamental values:** Brief introduction of different type of horticultural and ornamental plants (carnation, anthurium, orchids, etc.) and their commercial aspects; recent development of novel varieties through grafting, breeding and genetic transformation for pigment modification.

SUGGESTED READINGS: