

Plants : Economic Importance

These notes are your ultimate revision weapon to revise Plants : Economic Importance. We've distilled years of previous exam questions (PYQs) into one powerful, concise resource. Everything you need to know, nothing you don't.

- **PYQs, Decoded:** All key concepts from past exams, organized and simplified.
- **Revise in Record Time:** Short, precise, and designed for last-minute review.
- **Focus on What Matters:** Master high-probability topics and boost your confidence.

Improved Plant Varieties & Hybrids

Fruit Crops



- **Mango:**
 - **Improved Variety:** 'Kanchan'
 - **Hybrid Variety:** 'Ratna' (a cross between Neelum and Alphonso)
 - **Other Known Varieties:** Amrapali, Dasherri, Badami
- **Indian Gooseberry (Amla):**
 - 'Kanchan' is **not** a variety of Indian gooseberry.

Medicinal Plants and Their Uses

Specific Plants & Properties

- **Neem Tree:**
 - Neem oil is used as a pesticide.
 - Has applications in the pharmaceutical industry.
 - The chief mosquito repellent is obtained from Neem (Margosa).

- **Tulsi (Holy Basil):**
 - Medicinal value is due to Phenols and Flavonoids.
 - Acts as an **Expectorant** (helps clear phlegm).
- **Aloe Vera:**
 - Classified as a medicinal crop.
- **Calotropis gigantea:**
 - Its extracts are used in the eco-friendly biological synthesis of nanoparticles for potential cancer treatment.
- **Cinchona:**
 - **Quinine**, a major anti-malarial drug, is obtained from its **bark**.
 - It is an Angiosperm (flowering plant).
 - A synthetic replacement for Quinine is **Chloroquine**.
 - **Hydroxychloroquine** is a drug derived from Quinine.
- **Artemisia annua:**
 - The anti-malarial medicine **Arteether** is obtained from this seeded plant.
- **Asafoetida (Hing):**
 - Obtained from the **root** of the plant.
- **Opium Poppy:**
 - **Opium** is obtained from the **fruit** of the plant.
- **Peppermint:**
 - The **leaf** has the maximum percentage of oil.
- **Brahmi:**
 - Used as a **Brain Tonic**.
- **Sadabahar (Periwinkle):**
 - Has **Anti-diabetic** properties.
- **Pudina (Mint):**
 - Acts as a **Carminative** (relieves gas).
- **Lichen:**
 - The acid-base indicator **litmus** is obtained from Lichen.

Biofuels and Petroplants

Raw Materials for Biofuels (India's Context)

- According to India's National Policy on Biofuels, approved raw materials include:
 - Cassava
 - Damaged wheat grains
 - Rotten potatoes
 - Sugar beet
- Seeds of **Moringa** and **Tamarind** can also be used.
- **Jatropha curcas** is the primary plant known and used for biodiesel production.

Ethanol Production

- **Ethanol**, a viable bio-fuel, can be obtained from **Sugarcane**.
- **Molasses** (a by-product of sugarcane) is an excellent raw material for producing **Power alcohol** (ethanol).

Petroplants (Plants rich in hydrocarbons)

- Petroplants are plants rich in **Hydrocarbons and Lipids**.
- **Pongam** is a leguminous plant that is also a petroplant.

Specific Biofuel Oils

- **Palm Oil:**
 - Can be used to produce biodiesel.
 - It is a raw material for industries producing lipstick and perfumes.
 - The palm oil tree is native to Southeast Asia.
- **Canola:**
 - A special type of oilseed mustard bred for human consumption.
 - Its main characteristic is that the oil has a very low erucic acid content.

Miscellaneous Forest Produce and Trees

- **Moringa (Drumstick tree):**
 - It is a leguminous evergreen tree.
 - India exports seeds of Moringa.
- **Tamarind:**
 - In India, most tamarind is collected as a **Minor Forest Produce**.
 - India exports tamarind.
- **Chilgoza**, an edible seed, is obtained from **Pine** species.
- **'Kuttu' flour**, used during fasting, is obtained from **Fagopyrum** (Buckwheat).

Beverages and Stimulants

- The most important stimulant in tea leaves is **Caffeine**.
- **Caffeine** is an alkaloid present in **both tea and coffee**.
- Soft drinks like cocoa contain significant quantities of **Caffeine**.



Other Important Plant Products

Spices and Flavorings

- **Saffron** spice is made from the **Stigma** (the female part) of the flower.
- **Vanilla** is derived from orchids.
- **Camphor** is obtained from the wood of the camphor tree.
- **Chicory** is a plant product, sometimes used as a coffee substitute.

Industrial Products

- **Rubber** is obtained from the **stem** (via latex) of the rubber tree.
- **Cork** is obtained from the bark of the **Oak tree (Quercus)**.
- **Tapa cloth** is obtained from plants belonging to the **Mulberry family (Moraceae)**.

Minerals from Plants

- **Seaweeds** are an important source of **Iodine**.

Infrastructure

Biofuel Plants in India

- The first biodiesel plant in India was being established in **Andhra Pradesh**.

Clarifications (Incorrect Sources)

- **Bitumen** is a petroleum product, not from a tree.
- **Tincal** (a crude form of borax) is a mineral, not from a tree.
- **Quinine** is **not** obtained from:
 - Cinnamon bark
 - Ocimum leaves
 - Acacia Catechu bark
- **Asafoetida** is **not** obtained from:
 - Exudation of the stem
 - Fruits
 - Leaves

Know More About Plants : Economic Importance:

- [Plants : Economic Importance – Old Year Questions](#)
- [Plants : Economic Importance One Liner Questions & Answers](#)