Major Cash Crops

*Sugarcane*
- **Temperature**: Between 21-27°C with hot and humid climate.
- **Rainfall**: Around 75-100 cm.
- **Soil Type**: Deep rich loamy soil.
- **Top Sugarcane Producing States**: Uttar Pradesh > Maharashtra > Karnataka > Tamil Nadu > Bihar.
- India is the second largest producer of sugarcane after Brazil.
- It can be grown on all variety of soils ranging from sandy loam to clay loam given these soils should be well drained.
- It needs manual labour from sowing to harvesting.
- It is the main source of sugar, gur (jaggery), khandsari and molasses.
- Scheme for Extending Financial Assistance to Sugar Undertakings (SEFASU) and National Policy on Biofuels are two of the government initiatives to support sugarcane production and sugar industry.

**Oil Seeds**

- **Temperature:** Between 15-30°C
- **Rainfall:** Around 30-75 cm.
- **Soil Type:** Loam to clayey loam and well drained sandy loams.
- **Top Oilseeds Producing States:** Madhya Pradesh > Rajasthan > Gujarat > Maharashtra > Uttar Pradesh.
Main oil-seeds produced in India are groundnut, mustard, coconut, sesame (til), soyabean, castor seeds, cotton seeds, linseed and sunflower.  
Most of these are edible and used as cooking mediums. However, some of these are also used as a raw material in the production of soap, cosmetics and ointments.  
Yellow Revolution and Integrated Scheme on Oilseeds, Pulses, Oil Palm and Maize (ISOPOM) are examples of government initiatives for oilseeds.

- **Groundnut is a kharif crop** and accounts for about half of the major oilseeds produced in the country.
- Linseed and mustard are rabi crops.
- Sesamum is a kharif crop in north and rabi crop in south India.
- Castor seed is grown both as rabi and kharif crop.

**Horticulture Crops**
Horticulture is the branch of agriculture concerned with cultivation, production and sale of fruits, vegetables, flowers, herbs, ornamental or exotic plants.

<table>
<thead>
<tr>
<th>Fruits</th>
<th>States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mangoes</td>
<td>Maharashtra, Andhra Pradesh, Telangana, Uttar Pradesh and West Bengal</td>
</tr>
<tr>
<td>Oranges</td>
<td>Nagpur and Cherrapunjee (Meghalaya)</td>
</tr>
<tr>
<td>Bananas</td>
<td>Kerala, Mizoram, Maharashtra and Tamil Nadu</td>
</tr>
<tr>
<td>Litchi and Guava</td>
<td>Uttar Pradesh and Bihar</td>
</tr>
<tr>
<td>Pineapples</td>
<td>Meghalaya</td>
</tr>
<tr>
<td>Grapes</td>
<td>Andhra Pradesh, Telangana and Maharashtra</td>
</tr>
<tr>
<td>Apples, Pears, Apricots and Walnuts</td>
<td>Jammu and Kashmir and Himachal Pradesh</td>
</tr>
</tbody>
</table>

India is the second largest producer of fruits and vegetables and it produces both tropical and temperate fruits.
• India produces about **13 percent of the world’s vegetables**. It is an important producer of peas, cauliflower, onions, cabbage, tomato, brinjal and potato.
• **Golden Revolution, Mission for Integrated Development of Horticulture (MIDH) and Coordinated Horticulture Assessment and Management using geo-informatics (Project CHAMAN)** are government initiatives to help the horticulture sector.

**Plantation Crops**

**Tea**

![Map of Major Tea Producing States in India](image)
- **Temperature:** Between 20-30°C
- **Rainfall:** Around 150-300 cm.
- **Soil Type:** Deep and fertile well-drained soil, rich in humus and organic matter.
- **Top Tea Producing States:** Assam > West Bengal > Tamil Nadu.
- **India** is the second largest producer of tea.
- It was **introduced in the eastern hill slopes of India by the British.**
- Slopes of eastern hills have humid climate and evenly distributed rainfall **without water logging** which are optimal conditions for terrace farming of tea.
- Tea is a **labour intensive industry.** It requires abundant, cheap and skilled labour. Tea is processed within the tea garden to retain its freshness.
- **Tea Development and Promotion Scheme, Wage Compensation Scheme and Tea Boutiques** are few of the government schemes for tea.

**Coffee**
- **Temperature**: Between 15-28°C
- **Rainfall**: Around 150-250 cm.
- **Soil Type**: Well drained, deep friable loamy soil.
- **Top Coffee Producing States**: Karnataka > Kerala > Tamil Nadu.
- **India is the seventh largest producer.**
- **Coffee was initially brought from Yemen and introduced on the Baba Budan Hills.**
- **Hills with well-defined shade canopy, comprising evergreen leguminous trees** provide the optimal condition for coffee cultivation that is why it is mainly concentrated in the hilly regions.
- **Indian variety of coffee ‘Arabica’ is famous worldwide.**
- Various Integrated Coffee Development Projects and schemes have been launched by the government to support coffee production.

**Rubber**

- **Temperature**: Above 25°C with moist and humid climate.
- **Rainfall**: More than 200 cm.
- **Soil Type**: Rich well drained alluvial soil.
- **Top Rubber Producing States**: Kerala > Tamil Nadu > Karnataka.
- It is an equatorial crop, but under special conditions, it is also grown in tropical and sub-tropical areas.
Rubber is an important industrial raw material.

Rubber Plantation Development Scheme and Rubber Group Planting Scheme are examples of government led initiatives for rubber.

Fibre Crops

Cotton

- **Temperature**: Between 21-30°C
- **Rainfall**: Around 50-100cm.
- **Soil Type**: Well drained black cotton soil of Deccan Plateau.
• Top Cotton Producing States: Gujarat > Maharashtra > Telangana > Andhra Pradesh > Rajasthan.
• India is believed to be the original home of the cotton plant. Cotton is one of the main raw materials for cotton textile industry.
• Cotton needs 210 frost-free days and bright sun-shine for its growth.
• It is a kharif crop and requires 6 to 8 months to mature.
• Silver Fibre Revolution and Technology Mission on Cotton are the government initiatives for increasing cotton production in India.
• Cotton has been genetically modified into BT Cotton to fight environmental stress and pest attacks.

Jute
- **Temperature**: Between 25-35°C
- **Rainfall**: Around 150-250 cm
- **Soil Type**: Well drained alluvial soil
- **Top Jute Producing States**: West Bengal > Bihar > Assam > Andhra Pradesh > Odisha.
- It is mainly concentrated in eastern India because of the rich alluvial soil of Ganga-Brahmaputra delta.
- India is the largest producer of jute.
- It is known as the golden fibre.
- It is used in making gunny bags, mats, ropes, yarn, carpets and other artefacts.
Due to its **high cost**, it is losing market to synthetic fibres and packing materials, particularly nylon.

**Golden Fibre Revolution and Technology Mission on Jute and Mesta** are two of the government initiatives to boost jute production in India.

### Changing Cropping Patterns of India

- Cropping pattern is a **dynamic concept** because it changes over space and time. It can be defined as the proportion of area under various crops at a point of time. Sometimes a number of **crops are cultivated in combinations and rotations over a period**.
- In India, the cropping pattern is **determined by rainfall, climate, temperature, soil type, technology and socio-economic conditions of the farmers**.
- These changes in the cropping pattern mainly occurred due to **increase in the prices of crops**. After independence a lot of changes had been recorded in the cropping pattern in India.
- **Green Revolution** also led to changes in the cropping patterns. Rice was introduced to **Punjab, Haryana and Uttar Pradesh**.
- Cultivation of food crops has become very **remunerative and productive due to the introduction of new technologies in Indian agriculture**.
- Farmers are more **intensively moving towards cultivation of cash/commercial crops** such as oilseeds, fruits, vegetables, spices, etc. **from the traditional non-cash/non-commercial crops** such as cereals and pulses.
- Farmers have changed their crop patterns in order to **reap the benefits of economic expansion** as well.
- **Climate change** has affected the Indian monsoon due to which cropping patterns are also changing.
- **Population explosion and urbanisation** has led to **land conversion, boosting intensive farming** and has brought changes in cropping patterns.

- At the beginning of the present century, nearly **83 percent** of the total cultivable land of India was put under **food crops** and the **remaining 17 percent** was put under **non-food crops**. But in **1944-45**, there was a **change in the cropping pattern** in India and area under **food crops came down to 80 percent** and the area under **non-food crops slightly increased to 20 percent**.

- Among all the food crops, the **largest increase** in area since **1950-51** has already been recorded by **wheat cultivation** which shows an **increase of 132 percent by 1987-88**. But in the case of both **rice and pulses**, the **increase in area has been restricted to only 23 percent; Coarse cereals** have recorded only **marginal increase of 11 percent by 1987-88**.