

AGRICULTURE IN INDIA

Soils

- Soil is the finest particle found on the earth surface.
- Soil is the uppermost layer of the land surface, usually composed of minerals, organic matter, living organisms, air and water.
- Alluvial soil, black soil, red soil and laterite soil are the major types of soil in India.
- Khadar - Newer alluvium soil found in valley flooded almost every year.
- Bhangar - Older alluvium soil found in 30 mts above flood level.

Soil Types and their Distribution in India

Soil Type	Distribution	Crops growing
Alluvial soil	Ganga and Brahmaputra River valleys; Plains of Uttar Pradesh, Uttarakhand, Punjab, Haryana, West Bengal and Bihar	Rice, Wheat, Sugarcane and Oilseeds
Black soils	Maharashtra and Malwa plateaus, Kathiawar peninsula, Telangana and Rayalaseema region of Andhra Pradesh and northern part of Karnataka	Cotton, Millets, Tobacco and Sugarcane
Red soils	Eastern parts of Deccan plateau, southern states of Kerala, Tamil Nadu, Karnataka and Chota Nagpur plateau (Jharkhand)	Wheat, Rice, Cotton, Sugarcane and Pulses
Laterite soils	Assam hills, hill summits of Kerala and Karnataka and eastern Ghats and region of Odisha	Coffee, Rubber, Cashew nut and Tapioca
Forest and mountain soils	Coniferous forest belts of Jammu and Kashmir, Himachal Pradesh, Uttarakhand and Sikkim, Eastern and Western Ghats	Coffee, tea, rice, maize, potato, barley, tropical fruits and various types of spices
Arid and desert soils	Rajasthan, Northern Gujarat and southern Punjab	millets, barley, cotton, maize and pulses
Peaty and marshy soils	Kottayam and Alappuzha districts of Kerala; and coastal areas of Odisha and Tamil Nadu, Sundarbans of West Bengal, in Bihar and Almora district of Uttarakhand	Paddy, jute

Irrigation

- The main sources of irrigation used in different parts of the country are Canal irrigation, Well irrigation and Tank irrigation.
- Canal irrigation is the second most important source of irrigation in our country. Percentage of area under canal irrigation in our country is 24%.
- Well irrigation is the most important source of irrigation as it contributes about 62 percent of net irrigated area in India.
- A tank is a natural or man-made hollow on the surface developed by constructing a small bund around it across a stream.

Cropping Seasons in India

India has three cropping seasons — Rabi, Kharif and Zaid

Cropping Seasons	Major crops cultivated in Northern States	Major crops cultivated in Southern States
Kharif Season June – September	Rice, Cotton, Bajra, Maize, Jowar, Tur	Rice, Ragi, Maize, Jowar, Groundnut
Rabi Season October–March	Wheat, Gram, Rapeseeds, Mustard, Barley	Rice, Maize, Ragi, Groundnut, Jowar
Zaid Season April–June	Vegetables, Fruits, Fodder	Rice, Vegetables, Fodder

Major Crops Cultivated in India

Food Crops - Rice, Wheat, Jowar, Bajra, Maize, Barley, Ragi, gram and Tur are some important food crops.

Rice

- It is the staple food crop of a majority of the people in India.
- India is the second largest producer of rice in the world after China.
- It is a kharif crop which requires high temperature, (above 25°C) and high humidity with annual rainfall above 100 cm.
- The first 10 leading rice producing states are West Bengal (First in India) Uttar Pradesh, Punjab, Tamil Nadu, Andhra Pradesh, Bihar, Chhattisgarh, Odisha, Assam, and Haryana.

Wheat

- This is the second most important cereal crop. It is the main food crop, in north and north-western part of the country.
- This rabi crop requires a cool growing season and a bright sunshine at the time of ripening.

- The major wheat-producing states are Uttar Pradesh, Punjab, Haryana, Rajasthan and Madhya Pradesh.

Millets

- Jowar, bajra and ragi are the important millets grown in India.
- Jowar is the third most important food crop with respect to area and production.
- Jowar is essentially a crop of the Peninsular India.
- Major Jowar producing States were Maharashtra, Karnataka, Andhra Pradesh and Madhya Pradesh.
- Bajra grows well on sandy soils and shallow black soil.
- Bajra is a crop of dry region.
- Rajasthan is the largest producer of bajra followed by Uttar Pradesh, Haryana, Gujarat and Maharashtra.
- Ragi is a crop of dry regions and grows well on red, black, sandy, loamy and shallow black soils.
- Major Ragi producing states are: Karnataka, Tamil Nadu, Himachal Pradesh, Uttarakhand, Sikkim, Jharkhand and Arunachal Pradesh.

Maize

- It is a kharif crop which requires temperature between 21°C to 27°C and grows well in old alluvial soil.
- Major maize-producing states are Karnataka, Uttar Pradesh, Bihar, Andhra Pradesh, Telangana and Madhya Pradesh.

Pulses

- India is the largest producer as well as the consumer of pulses in the world.
- The major pulse growing areas are Madhya Pradesh, Uttar Pradesh, Rajasthan, Maharashtra and Andhra Pradesh.

Cash Crops - Sugarcane, tobacco, fibre crops (cotton, jute, and mesta) and oilseeds are some important cash crops.

Sugarcane

- India is the second largest producer of sugarcane only after Brazil.
- Uttar Pradesh is the leading producer of sugarcane in India followed by Maharashtra, Karnataka, Tamil Nadu and Gujarat.
- It grows well in hot and humid climate with a temperature of 21°C to 27°C and an annual rainfall between 75cm and 100cm.
- Irrigation is required in the regions of low rainfall.

Cotton

- India ranks second next to China in the production of cotton.
- Top cotton producing countries are Gujarat, Maharashtra, Andhra Pradesh and Punjab.
- Cotton is the most important cash crop of India. It provides raw material to the largest industry of India.
- It is a kharif crop and requires 6 to 8 months to mature.

Jute

- It is a tropical fibre crops, grows well in the alluvial soil.
- West Bengal is the leading state both in cultivation and production of jute. The other cultivators of jute are Bihar, Assam and Meghalaya.
- It is known as the golden fibre.

Oil Seeds

- Main oil-seeds produced in India are groundnut, mustard, coconut, sesamum (til), soyabean, castor seeds, cotton seeds, linseed and sunflower.
- Groundnut is a kharif crop and accounts for about half of the major oilseeds produced in the country. Gujarat was the largest producer of groundnut.
- 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.

Plantation Crops - Tea, coffee, rubber and spices are the major plantation crops of India.

Tea

- Tea is an evergreen plant that mainly grows in tropical and subtropical climates.
- India is the second largest producer of tea after China in the world.
- Assam is the larger producer of tea in India. Other states are Tamil Nadu, Kerala and West Bengal.

Coffee

- Coffee is grown in shade and it grows effectively in the altitudes between 1,000 and 1,500 m above mean sea level.
- India is the 7th largest producer of coffee globally.
- Karnataka is the leading producer of coffee in India. It produces 71% in India, and 2.5 % in the world

Spices

- Pepper, chillies, turmeric, ginger, cardamom, clove and areca nut are the major spices cultivated in India.
- Kerala is the leading producer of spices in India.

Rubber

- Rubber plantation were first established in Kerala in 1902.

- It needs hot and wet climatic conditions.
- The major rubber growing areas are Tamil Nadu, Kerala, Karnataka and Andaman and Nicobar Islands.

Horticulture Crops

- It refers to the cultivation of fruits, flowers and vegetables.
- India was the second largest producer of fruits and vegetables in the world after China.
- India contributes about 13% of the world's production of vegetables.

Largest Crops Producing States

Food Grains

CROP	STATE
Rice	West Bengal
Bajra	Rajasthan
Wheat	Uttar Pradesh
Maize	Andhra Pradesh
Pulses	Madhya Pradesh

Oil Seeds

CROP	STATE
Groundnut	Gujarat
Soya bean	Madhya Pradesh
Mustard	Rajasthan
Sunflower	Karnataka

Cash Crops

CROP	STATE
Sugarcane	Uttar Pradesh
Cotton	Gujarat
Coffee	Karnataka
Tea	Assam
Silk	Karnataka
Rubber	Kerala
Tobacco	Andhra Pradesh

List of Important Agricultural Revolutions in India

Revolution	Related Product
Green Revolution	Food Grains
White Revolution	Milk Production
Round Revolution	Potato
Red Revolution	Meat Production / Tomato Production
Silver Fibre Revolution	Cotton
Silver Revolution	Egg Production / Poultry Production
Evergreen Revolution	Overall Production of Agriculture
Yellow Revolution	Oil seed Production (Especially Mustard and Sunflower)
Blue Revolution	Fish Production
Brown Revolution	Leather / Cocoa / Non-Conventional Products
Golden Fibre Revolution	Jute Production
Golden Revolution	Fruits / Honey Production / Horticulture Development
Grey Revolution	Fertilizers
Pink Revolution	Onion Production / Pharmaceuticals / Prawn Production