

AGRICULTURE – III

Cash Crops: Those crops which are meant for sale & not used by farmer his family. Ex Sugarcane. Tobacco, Oilseeds etc

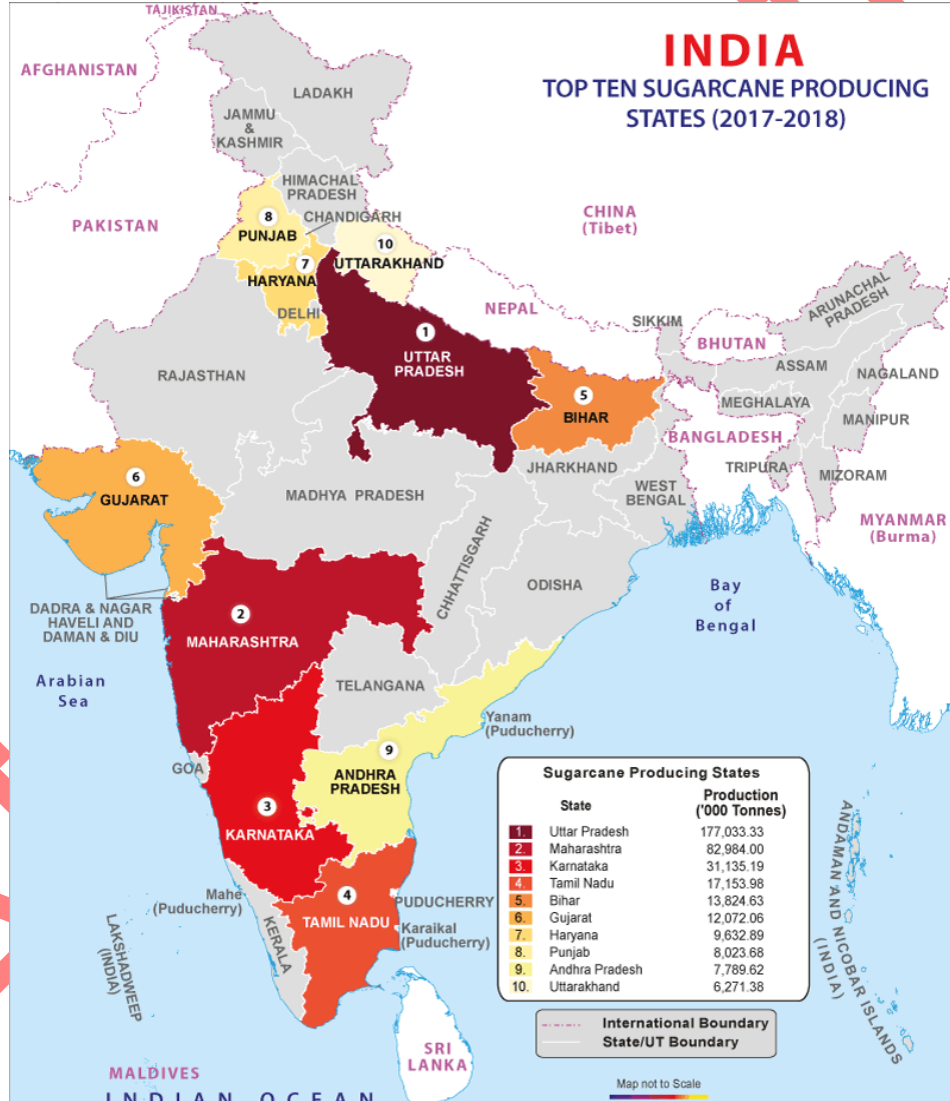
Sugar Cane: It is in the main member of grass family Sugar (sucrose) stored stem. India is IInd largest producer. It is source of sugar, gur and Khandsari.

Temp: 20 °C to 26 °C

Soil: Alluvial soil, lava soil

Rainfall: 100 - 150 cm , irrigation needed.

Distribution: UP, Maharashtra, TN, Karnataka



METHODS OF CULTIVATION

1. Sowing: Sugarcane is a labour intensive crop. The crop is kept weed-free and irrigated frequently if there are no timely rains. Most of the crop is planted just before the hot season, a little earlier in the southern and eastern parts. Sugarcane is planted by following methods:



(a) Sett Method: New cane is grown from cutting of old plant called Sett.

(b) Ratooning Method: During the first harvest, a little bit of stalk is left in soil. New cane grows out of old stalk called Ratoon.

(c) By Seed Method: Sugarcane is planted by seed. This method is outdated.

2. Harvesting: The crop is cut by hand using a long-curved knife. The stalks must be cut as near as possible to the ground because the greatest accumulation of sucrose is in the base of the stem.

The cane harvest and crushing operations begin in October-November and continue till April all over the country.

3. Processing: After harvesting, the canes are taken quickly to the mill for they must be processed within 24 hours of cutting to preserve the sugar content.

In the mills the cane is crushed between rollers and then boiled with lime. The sugarcane juice crystallises and forms raw brown sugar. This process should not be confused with refining which re-processes the raw sugar to make brown and white sugar of various grades.

About two-thirds of the sugarcane produced in the country is used by the gur and khandsari industries and only about a third of it is used to make sugar.

Que:- Why Sugarcane Cultivation in South India has higher yield per hectare?

Ans:- Longer growing season, frost, better irrigation and maritime climate free from summer loo and winter new farming techniques.



Tamil Nadu is largest producer of sugarcane in South India.

PROBLEMS OF SUGARCANE CULTIVATORS

1. It is soil exhaustive crop so cost of fertilizer

increase cost of production.

2. The farms are far away from the mills.

3. The cost of transport increase the cost of production.

4. It is annual crop so farmers are unable to grow another crop.

5. It require irrigation facility.

ROLE OF GOVERNMENT IN SOLVING FARMERS PROBLEMS

(a) Cooperative societies have been set up to help farmers.

(b) Rural Credit Bank provide cheap loan to farmers.

(c) Irrigation facilities are developed by government.

OILSEEDS

Seeds which contain oil. Such as groundnut, Soyabean, mustard etc. They are used as industrial raw materials in the manufacture of paints, varnishes, hydrogenated oil, soap and lubricants. Oil cake is used as fodder for animals & used as manure. Vegetable oils made from groundnut, mustard, sunflower etc. are edible.



1. GROUNDNUT - Also known as peanut or monkey nut. It is used as cooking medium. It is kharif crop sown in June - July & harvested in November - December.

CLIMATIC CONDITIONS

Groundnut thrives well in the tropical and sub-tropical climates and is highly susceptible to frost. The groundnut is a rabi crop in Odisha and in southern states. In the rest of India, it is a kharif crop.

Temperature: Groundnut requires about 20°C to 25°C temperature. Dry weather is needed during the time of ripening.

Rainfall: Groundnuts require light to moderate rainfall between 50 to 100cm. Rainfall should be well distributed. In Tamil Nadu and Maharashtra it is raised under irrigation.

SOIL

Sandy loams, loams and well-drained black soils.

METHODS OF CULTIVATION

1. Sowing: The sandy soil is ploughed. Then the seeds are sown by broadcasting or drilling in June or July

2. Harvesting: The entire plant, including the roots, is removed from the soil. Groundnuts are dried and packed into sacks to be sent to mills or commercial establishments.

DISTRIBUTION

India is the second largest producer of groundnuts in the world after China. Gujarat is the leading producer of groundnuts in India. Maharashtra, Karnataka, Andhra Pradesh, Rajasthan, Madhya Pradesh, Uttar Pradesh and Punjab.

2. MUSTARD

Mustard oil seeds are crushed to get an important edible oil. It is used extensively in northern India as a cooking medium. In Uttar Pradesh, Punjab and Haryana the oil cake of mustard is an important cattlefeed. The leaves of mustard (sarson) are eaten as vegetable in Punjab and Uttar Pradesh. It is also used as a manure.

Mustard thrives only in cool climate and that is why it is widely grown in the Sutlej-Ganga Plain and a very small proportion is obtained from the States of Peninsular India.

CLIMATIC CONDITIONS

Temperature and Rainfall: Since mustard grows best in cool climate, it is grow well in temperature which ranges from 10° to 20°C. The crop requires rainfall varying between 25 to 40cm.

SOIL

Mustard can be grown on loams but slightly heavier soils are preferred.

METHODS OF CULTIVATION

Mustard is grown with wheat, gram, barley in rows in the same climatic conditions. Its growing period is four to five months. It is harvested about one or two weeks before the main crop and collected in heaps in the granary. The seeds are separated by getting them trampled under the bullocks' feet.

DISTRIBUTION

Uttar Pradesh, Rajasthan, Punjab, Madhya Pradesh and Haryana.

3. SOYABEAN

Soyabean has a high protein content. The beans may be eaten as vegetable or made into soya sauce. Soyabean is used as a substitute for animal protein. It is consumed as soya milk and tofu (cheese).

CLIMATIC CONDITIONS

Soyabean is a light coloured oval bean raised as a kharif crop. It is sown in the month of June. Care is, however, taken that time-lag between the sowing time and the onset of heavy monsoon rains is about two weeks since heavy rainfall adversely affects the germination of soyabean seeds.

Temperature: It requires temperature in the range of 13°C - 24°C.

Temperature above 13°C is necessary for the normal growth of soyabean.

Rainfall: Soyabean grows in regions with 40cm to 60cm of rainfall. The rainfall should be well distributed throughout the growing season.

Soil: It is grown on friable loamy acidic soils.

METHODS OF CULTIVATION

The crop needs three or four irrigations during its growing period. Before sowing, its seeds are covered with gur (jaggery) and rhizobium.

Oil Seed	Temperature	Rainfall	Oil	Leading States
Groundnut	20 °C to 25 °C	50 to 100 cm	Loam – Sandy	Gujarat, <u>Telangana</u> , <u>Tamil Nadu</u>
Mustard	10 °C to 20 °C	25 to 40 cm	Loam	UP, Rajasthan, Punjab, MP
<u>Soyabean</u>	13 °C to 24 °C	40 to 60 cm	Loam	MP, Rajasthan, Maharashtra

DISTRIBUTION

The most important soyabean producing area lies in Madhya Pradesh and the adjoining districts of Rajasthan and Maharashtra. Madhya Pradesh is the leading producer of soyabean.