

LECTURE 9
FRENCH BEAN
Phaseolus vulgaris

- *Rajmash*, kidney bean, common bean etc.,
- In India
 - the fresh pods for vegetable is called as *faras* and dried pulse as *rajmash*
 - More fleshy tender pods of round types with less string are for vegetables compared to flat pods
 - Dried seeds are highly nutritious

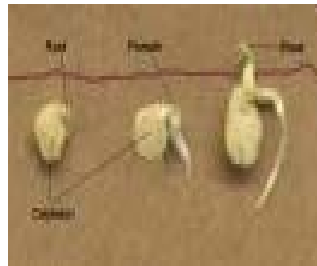
Area

- It is extensively cultivated in 5 major continents
- Brazil is the leading country
- In India it is only a minor pulse
 - Cultivated in hills during Kharif
 - Small areas in northern plain during rabi



- **Origin**
 - Highlands of middle America and Andes
 - Cultivated over a period of 7000-8000 years
 - Varieties in India are : PDR 14, HUR 15, VL 63
 - Duration 110-120 days, seed weight around 400mg
- **Soil**
 - All types of soil
 - Poor to fertile
 - Well drained soil is more suitable since sensitive to salinity and alkalinity
- **Field preparation**
 - As for other pulses except rice-fallows

- Medium tillage is sufficient
- **Seed treatment**
 - For seed borne pests and diseases
 - Rhizobium for nodulation
- **Season**
 - NW Plains – end of October
 - NE Plains – Second fortnight of November
 - Soil moisture availability decides the time
 - Delay in sowing end with terminal drought
- **Seed rate**
 - Depends up on the size of the seeds & spacing
 - French bean : 120-140 kg (350-450mg)
- **Method of sowing**
 - Broadcasting and planking
 - Drilling manually
 - Seed drill sowing



- **Depth of sowing**
 - Since all cool season pulses are hypogeal can be planted deep depending on the moisture
- **Nutrient Management**

Ecosystem	N	P ₂ O ₅	K ₂ O	S
Irrigated	100	60	20	20

- One or two supplemental irrigation is needed
- **Weed management**
 - All methods to be employed
 - Herbicides can also be as per kharif pulses

- **Cropping systems**
 - Cereal – legume is always good
 - Cereals in Kharif
 - They also under mixed community with winter cereals like wheat & barley
- **Harvest**
 - Over ripening leads to great loss of yield in French bean
 - Staggered harvesting is one way
 - Cut entire plant and carry with moisture & then dry, thrash and clean
 - Store the seeds at 8 -10 % moisture

Multiple choice questions

1. Common name of French bean in Hindi _____
 - a. Navy bean
 - b. Kidney bean
 - c. Rajmash**
2. Protein content in dried French bean seeds _____
 - a. 18%
 - b. 25%
 - c. 23%**
3. French bean belongs to the family _____
 - a. Tiliaceae
 - b. Leguminoceae**
 - c. Papilionaceae
4. Recommended seed rate for French bean is _____kg/ha
 - a. 120**
 - b. 150
 - c. 60
5. Fertilizer recommendation for French bean is _____kg/ha NPK
 - a. 100:60:20**
 - b. 100:20:0
 - c. 150:50:50