Climatic and Soil Requirement for Sunflower

**Climatic requirement**

- The crop requires a cool climate during germination and seedling stage.
- Warm weather from seedling up to flowering.
- Non cloudy sunny days from flowering to maturity.
- High humidity together with cloudy weather and rainfall at the time of flowering results in poor seed set.
- The amount of linoleic acid decreases with high temperature at maturity.
- The seasonal rainfall requirement for a good crop of sunflower is about 500 mm.
- Sunflower is a photo insensitive crop. So it can be grown in any season.
- The ideal conditions for best sunflower production are that
  - Kharif: Flowering period should not coincide with continuous rains/drizzle.
  - Summer: Temperature during flowering should not exceed 38 to 40 °C.
  - Optimum temperature during growing period: 20 to 25 °C.

**Soil requirement**

- Sunflower performs well on a wide range of soils such as sandy loams, black soils and alluviums. Never the less, it does best in fertile, well drained neutral soils.
- Sunflower is more susceptible to high moistness and soil compaction.
- During rabi season it is grown in moisture retentive soils of vertisols.
- PH of 6.5 to 8.0 is ideal for its cultivation.
- It can tolerate slight alkaline conditions but not acidity.
- Water logging areas should be avoided, adequate drainage is a must.
- Poor drainage conditions are unsuited because it increases susceptibility to fungal diseases.
- An Exchangeable sodium percentage of more than 16 cause delayed germination and less development of flower heads.