

2(e.) Crop- Weather Interaction.

Wheat, rice, maize

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Rice

Examples

- It tolerates up to 40°C provided water is not a limiting factor
- A mean temperature of 22°C is required for entire growing period
- If night temperature is <15°C during the entire vegetative stage, the rice yield is affected
- Higher solar radiation(300cal/m²/day) is required during 45 days earlier to harvest
- The period during which low temperature is most critical is about 10 to 14 days before heading

Wheat

Examples

- Withstand intense cold condition during growing season
- During germination and growth the temperature must be from 15 to 20°C
- High temperature during >25°C reduce tiller numbers, growth and grain yield
- Sensitive to moisture stress from shooting to advance heading stage
- Bright sunshine hours with less RH and cooler nights during ripening period gave quality grains

Maize

Examples

- Maize grows well in areas where the mean temperature is around 24°C and night temperature is above 15°C
- During flowering period if the maximum temperature is around 35°C and more, the fertilization is affected and this led poor grain yield
- The crop requires high amount of water during flowering stage, but sensitive to water stagnation