

Changing climate and its impact on productivity of cowpea and bajra in semi-arid region

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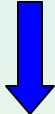

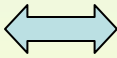
Objective

To study the changing climate parameters *viz.* maximum and minimum temperature, rainy days and relative humidity and its impact on productivity of cowpea (*Vigna unguiculata*) and bajra (*Pennisetum typhoides*)

Methodology

- Location** : Research Farm, C.S.W.R.I., Avikanagar
[75°25' to 75°28' E longitude and
26°15' to 26°25' N latitude]
- Climatic conditions** : Semi-arid
- Soils** : Sandy loam in texture with low O.C. (0.32%)
- The study decades** : 1990-1999 and 2000-2009.
- Study period** : *kharif* season
(Standard Meteorological Week No. 26 to 40)
- Test crops** : Cereal [Bajra] and Legume [Cowpea] .
- Climatic parameters** : Weekly maximum & minimum temperature,
rainy days and average relative humidity

Results

	1990 to 1999	2000 to 2009
Maximum Temp (°C)	32.71	 34.01
Minimum Temp (°C)	25.83	 24.14
Rainy Days	1.76	 1.43
Average R.H.	70.51	 70.41

CONCLUSION

In semi-arid areas, productivity of cereal (bajra) and legume (cowpea) crops remarkably affected by change in the climatic parameters. Considerable increase in average weekly maximum temperature during the study period drastically reduced the bajra yields, however, cowpea yields increased with increase in weekly maximum temperature. Weekly rainy days had direct bearing on productivity of both cereal and legume in *kharif* season of semi-arid regions.



Thank You