

## AGRO- CLIMATIC REGIONS

The State of Punjab is divided into six agro-climate regions viz., sub-mountain undulating plain region, central plain region, western plain region, western region and flood prone region. However district Gurdaspur falls under three agro-climatic regions. Brief description of these regions is as follows.

**i) Sub-mountain undulating region:** This region comprises Pathankot, Dharkalan, Narot Jaimal Singh and Bamial blocks of the district. A large numbers of streams which originate in the Shivalik hills have produced very uneven topography. Lower Shivalik hills in the north-east of the district sand witched between Jammu and Kashmir and Himachal Pradesh is the hilly tract of the district. Altitude of this region varies between 300-900 metres.

The hill ranges are mostly sandy and support only sparse vegetation. Due to variation in degree of slope,run -off rate is high in upper reaches. Steep gradient of the land, bare land surface and he avy rains cause severe soil erosion. This area needs massive afforestation.

The soil texture of this region varies from pure sand to silt to fine clay. The soils are generally shallow in the hills and quite deep in the plains. Underground water reservoir is inadequate but quality of water is good. The annual rainfall is more than 900 mm.Maize and paddy is the major Kharif crops whereas wheat is the principal crop during *rabi* season in all the blocks under this region. The important fruit crops of this region are litchi and mango.

**ii) Undulating Plain region:** This region includes Gurdaspur, dinanagar, Dhariwal, Kahnuwan, kalanaur and some parts of Sri Har Gobindpur and Dera Baba Nanak of the district. Slope of the land is less steep than that of sub-mountainous undulating region.

Numerous drains and canals transverse this region. Number of streams is less than sub-mountainous undulating region.

Tubewells can be installed within 50 to 65 metre depth under this situation. Annual rainfall of this zone is 800-900 mm. The combination of moderate temperature and high humidity makes this region the most congenial for the development of plant diseases and insect – pest attack.

Soil of this region is medium to heavy in texture. Mild to moderate alkalinity problems prevail in soils of Kalanaur and Dera Baba Nanak. Wheat, paddy and sugarcane are the major field crops whereas mango, litchi and citrus are the important fruit crops of this region.

**iii) Central plain region:** This region comprises Batala, Fatehgarh Churian, Quadian, some parts of Dera Baba Nanak, Shri Hargobindpur and Dhariwal blocks. This region has homogenous land with gentle slope and therefore it is free from wind and water erosion.

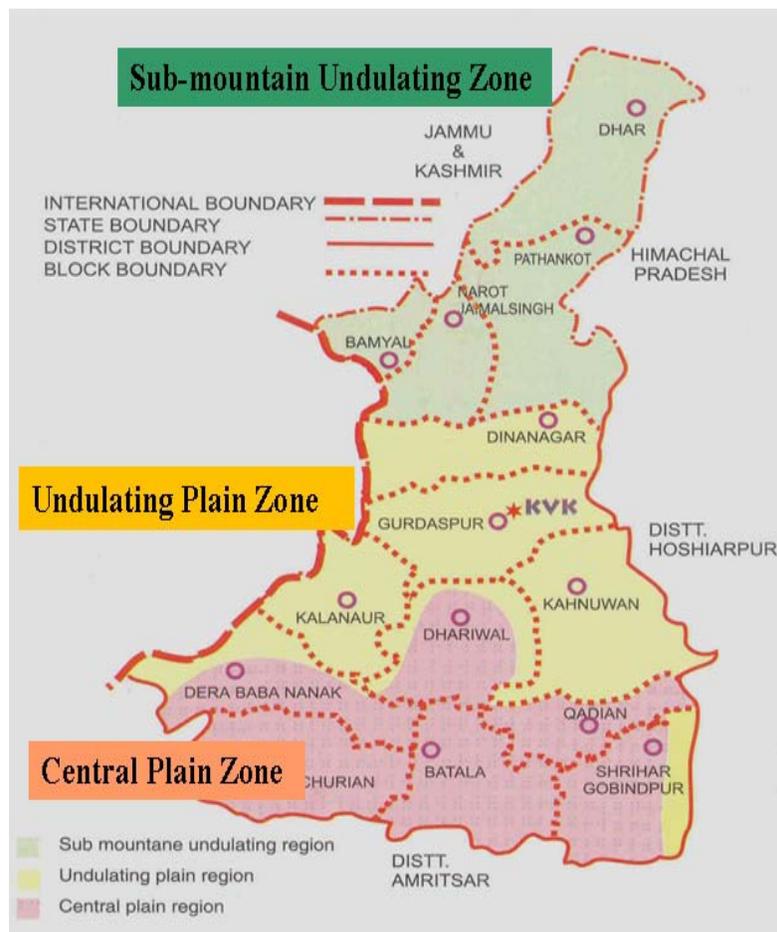
Soil of this region is medium to heavy in texture. Moderate Alkaline problem exist in Dera Baba Nanak and Fatehgarh Churian blocks.

Paddy-wheat is the major crop rotation of this region. Sugarcane is another important crop.

### Agro Climatic Regions in District Gurdaspur

Region	Name of Blocks	Soil Texture	Ph	O.C.	Special features
Sub-mountain undulating region	Dharkalan,Pathankot,Narot Jaimal Singh and Bamial	Loamy sand	<7.0	>0.4	Mostly rainfed with stony & slopy soil

Undulating plain region	Gurdaspur, Dinanagar, Kalanaur, Some parts of SHG, Dera baba Nanak and Dhariwal	Clay loam	7.0-8.3	<0.4	Tubewell irrigated prone region with having hard crust and soil aeration
Central plain region	Fatehgarh churian, Batala, Qadian, some parts of Dera Baba Nanak, Sri Hargobind pur and Dhariwal	Loamy to sandy loam	7.0-8.7	<0.4	Canal & tubewell irrigated, low to medium in nutrient status



**Figure 1 Agro-Climatic Regions in District Gurdaspur**