: Precipitation :

: ~~explain~~ :

Precipitation is the chief source of soil water. The water available to plants and animals from soil comes as a result of rainfall. There occurs an interchange of water between the earth's surface and the atmosphere, forming the water or hydrological cycle.

precipitation occurs ~~by three~~ in various forms viz- drizzle, rain, snow, dew, frost, sleet, hail etc.

precipitation occurs by three methods :-

i. convective
ii. orographic and
iii. cyclonic

(i) Convective — In convective precipitation warm but moist parcels of air rise upwardly into the cooler air to form water droplets. Transpired water condenses near the tree canopy and falls down in the form of light shower. e.g. ~~Rain~~ forest rain.

(ii) Orographic — Orographic precipitation occurs on the mountain slope. The warm moist air rise ~~on~~ upwards a slope till it reaches cooler region & get converted into precipitation.

(iii) Cyclonic - In cyclonic or frontal precipitation eddies (cyclonic movement) of warm ~~water~~ air, several hundred kilometers in diameters rise in vertical spiral around centre of low atmospheric pressure.

as they rise, they mix up with cold air and become cooled and get down as precipitation.

As Rain: The amount of rainfall greatly influence the vegetation of a particular region. ~~Rainfall~~ Rainfall distribution in different seasons of the year also an important in regional distribution of vegetation.

Annual rainfall determines the type of vegetation in any region. For Example — in tropical areas with heavy rainfall throughout the year results evergreen forest. The same amount of rainfall occuring in 3-8 months a year produces Deciduous forest. Sufficient rainfall in winter but little in summer produces scrub forest.

~~and sufficient rainfall in summer but little in winter results grassland.~~

On India, due to differences in the amount of ~~rainfall~~ annual rainfall and its distribution in different seasons of the year, we find different types of in different parts of the country.

Dew

° DEW °

It is the condensation of moisture over the surface of objects, especially plants, during night when the relative humidity of the atmosphere increases to saturation point due to fall in temperature (dew point). Dew is quite common in cooler periods. It is ~~quite common in cooler p~~ an important source of water to shallow rooted plants of the arid areas. Annual precipitation due to dew can be as high as 23 cm (Went, 1955).

Hail

° Hail °

It is a special type of precipitation which occurs in the form of balls or lumps of ice. Hail is produced by the lifting upwards of rain carrying air masses to such a height as to cause freezing of water droplets. The frozen droplets while coming down are picked up by air currents to rise again when they get another coating of ice. The process can be repeated several times. It increases the size of frozen particles. Hail is almost an annual feature in North India. It flattens crops and denudes trees of their foliage, fruits etc.

19 Tuesday

: SNOW :

It is a solidified precipitation which falls on the ground in the form of hexagonal crystals. It occurs in cold areas, temperate and arctic or alpine. Melting of snow is a source of water to stream and rivers.

During snowfall the plants gets completely covered with snow flakes. Exchange of gases is prevented. Non availability of oxygen and accumulation of by product of anaerobiosis are harmful. The wight of the snow collected over the branches and tender tops causes their breakage. The effect is severe if snowfall is followed by wind.

20 Wednesday