

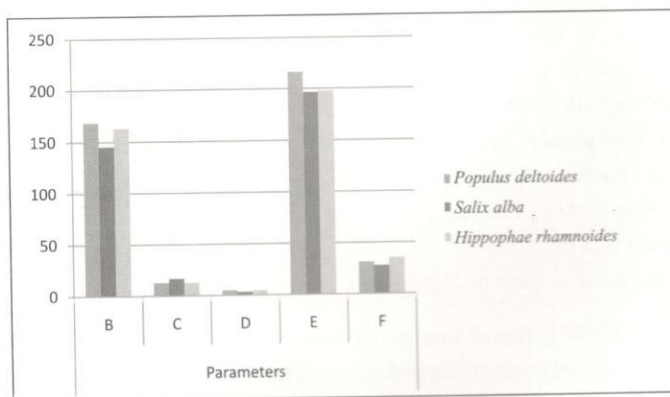
Fig.2. Over view of the study area - Goshal.

Grid 1			Grid 2			Grid 3		
Q-1	Q-2	Q-3	Q-1	Q-2	Q-3	Q-1	Q-2	Q-3
Grid 4			Grid 5			Grid 6		
Q-1	Q-2	Q-3	Q-1	Q-2	Q-3	Q-1	Q-2	Q-3
Grid 7			Grid 8			Grid 9		
Q-1	Q-2	Q-3	Q-1	Q-2	Q-3	Q-1	Q-2	Q-3

Fig.3. Sampling procedure in different ecosystems.

areas with less concentration of oxygen and carbon dioxide in the air.

Photosynthetic Activities and Water Use Efficiency in Woody Species: In case of forest ecosystem the data collected during different timings and under different weather conditions, for estimation of photosynthesis showed that photosynthetic activities found maximum during clear early morning and was minimum during cloudy evening and ranged between 135.38 $\mu\text{mol}/\text{m}^2/\text{sec}$ during cloudy evening to 792.31 $\mu\text{mol}/\text{m}^2/\text{sec}$ during clear morning day in case of *Populus deltoides*, 238.45 $\mu\text{mol}/\text{m}^2/\text{sec}$ to 1721.61 $\mu\text{mol}/\text{m}^2/\text{sec}$ for *Salix alba*, 121.18 $\mu\text{mol}/\text{m}^2/\text{sec}$ to 1352.61 $\mu\text{mol}/\text{m}^2/\text{sec}$ For *Hippophae rhamnoides*. The CO_2 intake was maximum during cloudy morning and minimum during clear late evening. Maximum CO_2 intake of 229.73 $\mu\text{mol}/\text{m}^2/\text{sec}$ was reported in *Populus deltoides* and photosynthetic rate was maximum of 36.61 $\mu\text{mol}/\text{m}^2/\text{sec}$ in *Salix alba* during clear early morning and was minimum 5.41 $\mu\text{mol}/\text{m}^2/\text{sec}$ in *Hippophae rhamnoides* in clear late evening; transpiration was maximum 19.52 $\mu\text{mol}/\text{m}^2/\text{sec}$ in *Populus deltoides* during clear early morning and the stomatal conductance was found maximum 435.61 $\mu\text{mol}/\text{m}^2/\text{sec}$ during clear early morning and was minimum 27.33 $\mu\text{mol}/\text{m}^2/\text{sec}$ in clear late evening in *Salix alba*; while the relative humidity was maximum in



B = CO_2 intake ($\mu\text{mol}/\text{m}^2/\text{sec}$), C = Photosynthetic rate ($\mu\text{mol}/\text{m}^2/\text{sec}$)
 D = Transpiration ($\mu\text{mol}/\text{m}^2/\text{sec}$), E = Stomatal conductance ($\mu\text{mol}/\text{m}^2/\text{sec}$)
 F = Relative humidity %

Fig.4. Mean values of photosynthetic activities in woody species present in Goshal Village.

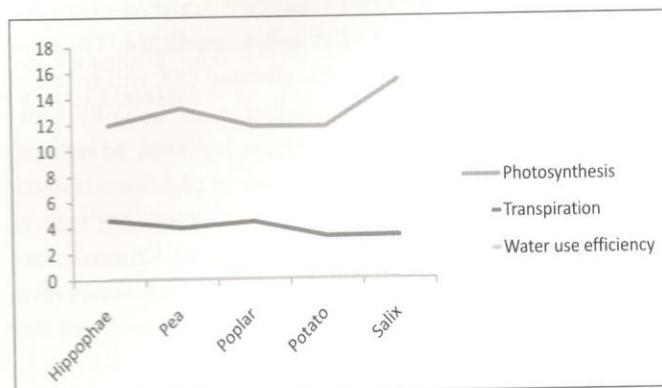


Fig.5. Photosynthesis, transpiration and water use efficiency of crops and woody species in village Goshal.

cloudy morning and was minimum in clear late evening. The mean values of photosynthetic activities of woody species is plotted in (Fig.4).