• Absorbed through root hair cells in the roots by the process osmosis. Water moves from root to leaves through xylem.

• 3. CARBON DIOXIDE

• Enters leaves through stomata by diffusion

• Increase in carbon dioxide increases the rate of photosynthesis.

• FACTORS AFFECTING PHOTOSYNTHESIS

• Carbon dioxide

• Increase in carbon dioxide increases the rate of photosynthesis

• WATER

• Lack of water slows down or stops photosynthesis

• LIGHT ENERGY

• It is the source of energy for photosynthesis.

• Light energy gets converted into chemical energy for food.

• Light is absorbed by chlorophyll pigment present in chloroplast.

• An increase in light intensity increases the rate of photosynthesis.

• TEMPERATURE

• Warmer temperatures are optimum for the action of enzymes in photosynthesis.

• Increase in temperature increases the rate of photosynthesis up to a certain limit.

LEAF STRUCTURE

1. LAMINA – It is supported by the stem, the petiole and its veins to be well exposed to light and to obtain carbon dioxide easily. It is thin to obtain the passage of light to the inner tissues of leaf, and to allow diffusion of gases to inside and outside of leaf easily. It is broad to obtain as maximum light as possible.

2. UPPER AND LOWER EPIDERMIS – Its function is to protect the inner cells of the leaf. Transparent to allow light to penetrate them. Secrete cuticle to reduce the rate of water loss.