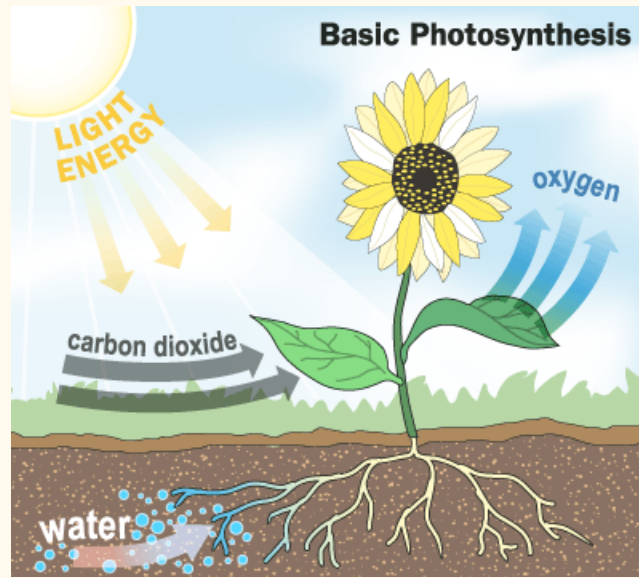


Do plants need humans to survive?

Do plants need humans to survive? Well simply stated; No. Humans are not beneficial to plants in any way. Let me explain how plants can survive alone.



To understand how plants can survive alone, you first need to understand the cellular processes they undergo. Plants are autotrophs: they create their own food. Plants make their own food through a process called photosynthesis. Photosynthesis is how plants use sunlight to synthesize food from carbon dioxide and water. Photosynthesis literally means Light(photo) Making(synthesis). What plants do is intake CO₂ and H₂O and the chloroplast captures sunlight. The sunlight is what powers the reaction. Now there are two reactions that take place in photosynthesis. The first is Light Dependent reaction. This happens in the thylakoid of a chloroplast. Light dependent reaction is when light is converted into energy that the plant can now use to make food. The following is Light Independent reaction, or the Dark reaction, or the Calvin cycle. The L.I.R occurs in the stroma, which is kind of like the cytoplasm of the chloroplast. What happens, is the energy that is created from the L.D.R is used to help turn CO₂ into glucose. This is what they eat for food.

So as you can see, plants make their own food. Humans do not help plants get their food. So plants do not need humans to get food. However, what humans do provide for plants is CO₂. Plants go through photosynthesis which exhausts oxygen, and then we breathe and exhaust CO₂, but plants also go through cellular respiration

Now in simple, cellular respiration uses glucose and oxygen to create ATP energy, and exhausts CO₂ and water. There are a few stages of cellular respiration. The first is glycolysis. In glycolysis, glucose is turned into pyruvate. Next is the kreb's cycle. In the kreb's cycle, pyruvate is turned into Acetyl COA. Then they take a ride on the electron transfer chain. What this does is add another phosphate group to ADP, changing it into ATP.

So since cellular respiration exhausts CO₂, other plants inhale that CO₂ and make it possible for plants to live completely by themselves. Without humans, plants would still live the exact same. Of course I can't be certain of this because I have never seen a plant live in a world without humans, but scientifically, it makes sense.

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