

Clip #2 Transcript: Importance of Poplar Species

We choose poplar because poplars are one of the most productive tree species and their distribution is in all northern hemisphere. And also this species is also known to grow up in a relatively short time [grows fast] and this growth ability is a function of the leaf production because their leaf production is very rapid and continues. So, they have a significant **Leaf Area Index**—so we can say that they have lots of leaves to increase the **photosynthetic rates**—so that's why poplar species are important in photosynthesis and in the environment.

And in addition to this, poplar species play an important role in both economy and ecology. They are used in different areas in industry, such as furniture, packing, or paper production. And they are also ecologically important, because they represent significant biological roles because they have a big Leaf Area Index, so they are really important in like **carbon sequestration** or **phytoremediation**, which is like cleaning the soil or something.

Also poplar uses lots of water from the soil, so it's very important in the drought condition. In the drought condition, it's really difficult for the poplar to grow because it use lots of water—because it needs water to make photosynthesis for lots of leaves because it has lots of leaves—and so its photosynthetic rates more than maybe some of other trees species.

For poplar species, ecologically they are important because they represent significant biological roles for carbon sequestration—so we can say that cleaning the carbon from the environment because it has lots of leaves on it—so there are lots of leaves to clean the carbon in the poplars. So also it's important in phytoremediation which is also cleaning the soil from the salt or from other harmful compounds.

