

Communication inside the plant

Summary last episode: Through roots and stem the water flows from plantmedium to the leaves. This flow is ignited by the vaporization of the water on the leaves and continues upward constantly. This is how we fertilize the plants and how we give them their supplements. Photosynthesis transforms the mineral fertilizer in the green leaves into organic material, like sugars and amino-acids.

These sugars, that form the energysource for the plants, are build up superfluously in the leaves and flows via a two way ´pipingsystem´ downwards, towards the roots. Rootcells grow continuously, but are not able to generate their own sugar because of lack of light. Next to the roots all plantcells without leafgreen depend on care by the leaves. Furthermore there is extra energy needed with the forming of new growingpoints, like crossroads of stems and on the ends of each stem. On all the places where extra energy is needed, one can find direct connections with the sugarholding ´pipingsystem´.



There are two complete different ways of transportation within the plants. One is dead, the other is interactive.

The pipelines that are used for taking in the water through the roots (central cilinder in the middle of every twig) is a system that can really grow wide. But it also depends on the location, because the material is woodlike. It is at all times possible to change the sugarpipelines. They adapt to new data (cuts, new lightconditions). They grow and disappear at will and therefore react interactive.

Each plantcell is surrounded by two pipingsystems. The entire plant consists of cells and waterballoons, so to speak. All cells have the same function in the end: to produce materials and transform other materials - metabolism. To secure the permanent maintenance of the cells we need two things; MATERIAL and ENERGY. The material, we are talking about cellmaterials like among others nitrogen, fosfor and iron, is provided through the roots, via the transpiration flow. The energy to build up the cellmoleculs are delivered via the sugarpipeline that comes from the top of the leaves. They run in the stems (long distance transportation) in the planttissue that is located on the outside of the plant. Although we have two different plantsystems, every plantcell is taken care of perfectly this way.

In fact we have to imagine ourselves the cell to look like a small balloon, with a pipe of saltwater on one side and a pipe with sugarwater on the other side. These means of transportation are connected to the inside of the cell and are able to take up or give off material.

Is the plant able to control these two flows?

1. Checking the flows of transpiration

By opening or closing the leafpores the plant itself could have some influence on the flow of transpiration, although it is still highly dependant on the presence of water and food.

When there is a 100% humidity in a room, the plant can open it's pores to the max, still the vaporization is blocked by the extreme humid climate.

This works the other way around too: if there's a perfect climate and a perfect transpiration, but not enough water and food. In this situation the plant will close its leafpores to prevent itself from drying out. When there is a continuous lack of water and the plant does not have special mechanisms like for example desertplants do, the plant will be damaged permanently.

In between these two situations a plant can in fact control its transpiration, in order to succeed and adapt to a water- and foodsupply that will fit in the climate, thus creating a perfect situation.

2. Checking the plants' sugarpipelines

The flow of sugar in the plant is hard to grasp and hard to research, because it is impossible to find start- and finishpoints. De piping is also too small to do research on seperately. It is possible to get the juices out with the help of green fly, but it will still be unknown where the pipes lead to and why. In fact, we are not satisfied on our knowledge on the transport of energy within plants, although we have a lot of theories on the matter.

For the more experienced in this subject: scientists know the pipelines, which transport the sugar and are very lively indeed, grow and form new connections to steer material in a certain way, using their energy. Steering powers are a.o. the active diminishment of sugar in a region and the resulting osmosis-flow in the direction of the shortage of sugar. The pipelines themselves have pumpmechanisms as well.



How flexible the plants can react to change we can see when observing the motherplant.

Within a few days after cutting everything is back to normal again, cuts have healed and the growing

starts.

This is a clear example of the ability of the energylines. If we take cuttings from a motherplant in such a way that the growingpoints are left, the plant will take care of it immediately by adding sugar, enzymes and other materials and we will see the growingpoint getting active again. If we cut the twigs in such a way, no growing points are left and the twig will dry out and turn brown again. This spontaneous and flexible reaction of the motherplant on a cut is a result of her feeling what is going on. She is able to recognize what is going on and to conclude if repair is possible.

If a plant has anything of a soul or a consciousness, then it can be found in the energylines. In effect the energylines of a plant form a communicationsystem, that connects all parts of the plant.

New growth of a plant needs time. Although nothing is to be seen from the outside and it would seem the plants thinking has come to a standstill, she is actually busy to provide the pipes with a new flowdirection and route, to steer the 'rescue troops' towards the growpoints. We are not experiencing a standstill at all.

Because all of the sugarpipelines start inside the leafs and we can only take care of them from the outside (leaf or root), it is not possible for us to have any influence on the sugarpipelines. In fact that is not even necessary, because each plant does a perfect job at this, better than a human being could do actually.