



## Topic: Plant Health Analysis Needs Trained Eyes

**Question:** When I go to the doctor for my regular checkups, he analyzes a blood sample and can provide a plethora of information about my health. That made me wonder if such a technology exists for plants. My thought is that if I take a small sample of a tree, such as a branch, is there any technology available that can analyze the flow of water, nutrients, minerals, etc. in the plant, thereby enhancing our understanding of how to keep a tree healthy as well as spot trends and potential health deficiencies? Plant hematology, does it exist?

Ham, email

**Answer:** There is a SPAD meter that measures leaf color and chlorophyll content in plants. Chlorophyll content is an important indicator of plant health. However, the readings from this meter can be extremely variable. There are also leaf moisture tension meters that measure the degree of wilt. However, there is no tool that is capable of measuring water flow, nutrients, and mineral content in the plant.

Removing a part of a plant for sampling, as you've suggested, is similar to removing an arm for examination to ascertain the health of the patient. There would be no blood flow in a severed arm as much as there would be no sap, water or mineral flow in a detached branch. So analysis would likely have to occur in the field if such a device becomes available. As things stand now, a person can be trained to evaluate the nutritional status of some plants by eyes. However, yours is an intriguing idea.

### Useful Links

[Stephen's Webpage](#)

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