

HRx



Analysis + Solution

Overview

HRx is the state-of-the-art solution designed by Hydroponic Research to diagnose deficiencies in your plant nutrition and provide a remedy specifically tailored for your plant grown under your conditions.

HRx leverages plant sap analysis along with our several years of independent manufacturing proficiency to identify shortcomings and get you real observable results.

Plant sap analysis is a technique used by growers and agricultural scientists to assess the nutrient levels and overall health of plants in real time. This method involves extracting sap from plant foliage and analyzing its composition to determine the concentration of various elements such as nitrogen, phosphorus, potassium, calcium, magnesium, and trace minerals.

The analysis provides valuable information about the plant's nutrient status, allowing us to make informed decisions about improving fertilizer applications.

Diagnosis + Remedy

1. Sample Collection:

Growers collect plant sap samples of a specific cultivar grown and fertilized under uniform conditions. It's essential to collect samples from several plants across the growing area to get a representative analysis.

Whether or not the grower is using Hydroponic Research nutrients, a nutrient feed sample and run-off sample are also taken for analysis.

2. Laboratory Analysis:

The collected sap and water samples are sent to the laboratory for analysis. In the lab, the sap is tested for nutrient content, including macro and micronutrients. Advanced techniques like ion chromatography or inductively coupled plasma (ICP) spectroscopy are employed to achieve accurate results.

Nutrient Feed samples are analyzed to measure what nutrients the plant is being delivered. Analysis of run-off samples allow us to determine what the plant is absorbing through in its root system.

3. Interpreting Results:

The detailed laboratory report indicates the nutrient levels in the sap sample. HRx can compare these results to established optimal ranges specific to your plant. Deviations from the optimal nutrient levels can indicate deficiencies or excesses, providing insights into the plant's health.

4. Adjusting Cultivation Practices:

Based on the results of the laboratory analysis, HRx can adjust your nutrition accordingly. The dexterity of manufacturing at Hydroponic Research allows us to customize formulations specifically responding to your need.

A microDOS will be customized for you and sent as a nutrient patch to be added to your standard nutrient regiment.

We can now impact your crop performance in a direct way not thought possible before now.

5. Monitoring Progress:

Regular plant sap analysis allows growers to monitor the effectiveness of their adjustments over time. By tracking changes in nutrient levels, growers can fine-tune their cultivation practices for optimal plant health and yield.

Additional Benefits of HRx for Cultivators

- 1. Precision Cultivation:** Plant sap analysis enables precise nutrient management tailored to the specific needs of cannabis plants, leading to improved growth and yield.
- 2. Cost Efficiency:** By identifying nutrient deficiencies accurately, growers can avoid unnecessary or ineffective fertilizer applications, saving costs.
- 3. Environmental Sustainability:** By increasing efficiency and minimizing fertilizer use, growers contribute to reducing environmental pollution associated with excessive fertilizer runoff.
- 4. Early Problem Detection:** Plant sap analysis can detect nutrient deficiencies before they become visually apparent, allowing growers to address issues proactively.
- 5. Pest and Disease Management:** Certain nutrient imbalances can make plants more susceptible to pests and diseases. By correcting these imbalances, growers can enhance the plant's natural resistance.
- 6. pH and Media Amendments:** Plant sap analysis might also reveal imbalances in pH or the presence of toxic elements. Growers can amend the media or adjust pH levels to create a more favorable growing environment.

In summary, plant sap analysis provides growers with a scientific approach to optimize nutrient management and enhance the overall health and productivity of cannabis crops. By utilizing the insights gained from sap analysis, growers can make data-driven decisions that result in healthier plants and better yields.