

PRECISION NUTRIENT PROGRAMS™

“A scientific approach to nutrient management”

PNP™

Precision nutrient programs (PNP) are developed following a comprehensive review of analytical data. The importance of PNP in turf is evident when we consider the inert fertility of sand media used in the construction and topdressing of golf course greens. The approach is based on the fact that balanced fertility is our first line of defense against pressures from insects and disease.

Environmental factors such as soil temperature, soil pH, nutrient interactions, and water chemistry, influence the uptake of nutrients from soil. To assess the impact of these factors, we need to introduce a Plant Monitoring program throughout the growing season to collect the necessary data for a Precision Nutrient Program.

SOIL TESTING

A soil test is the cornerstone of a Precision Nutrient Program. A soil test measures the potential of the growing media to yield nutrients and provides insight to the antagonistic relationships that lead to nutrient deficiencies. Soil tests should be submitted every two to three years per location.

IRRIGATION WATER ANALYSIS

Irrigation water analysis provides three key pieces of information. Firstly, high levels of bicarbonates tie up Calcium and Magnesium limiting their availability. Secondly, high sodium levels have a detrimental effect during periods of prolonged drought conditions. The pH of irrigation water is important to

maximizing the benefits of foliar and soluble fertilizers and chemical sprays.

WATER SOLUBLE TEST

The water-soluble test provides a snapshot of the nutrient values in the soil solution and is used mainly in sand media to confirm deficiencies predicted from soil testing. This test should be submitted as an optional tool for examining nutrient availability. Recommendations should not be made from a Water-soluble test as the results can vary significantly from day to day.

WET CHEMISTRY TISSUE ANALYSIS

Wet chemistry tissue analysis is a tool used for plant monitoring. Samples are taken from the same locations on 10 to 14 day intervals throughout the growing season. The goal is to establish a history of nutrient uptake in order to make adjustments to existing programs. In sand media, deficiencies in secondary nutrients such as Calcium, Magnesium, and Potassium are common throughout critical growth stages of turf grass.

In summary, Precision nutrient programs optimize plant health by utilizing data provided by accredited laboratories. Research supports balanced fertility as a natural method of defense against pressure from insects and disease.



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For more information contact us at 1-866-499-0659

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