IMPORTANCE OF PETIOLE ANALYSIS IN POMEGRANATE

Pomegranate (Punica granatum) is an important commercial crop. Of late, it has acquired the status of a super-food on account of its medicinal & nutritional value. Lately, Pomegranate cultivation is facing serious problems due to various nutritional disorders which not only result in wasteful expenditure but also affect the productivity and quality of produce. Petiole analysis as an effective tool can provide a clear picture of what is happening in the orchard in terms of nutrient absorption by the roots.

The following Q&As will provide required details to help Pomegranate growers to take care of this aspect:

What is petiole testing?

Petiole testing, also referred to as plant tissue analysis, is essentially a laboratory analysis to determine / estimate content of nutrients in the plant part/s.

What are the benefits of petiole analysis?

- It helps in determining whether nutrient uptake is adequate / sufficient at a given crop growth stage.
- This helps in diagnosing hidden nutrient deficiency status.
- It indicates bioavailability of nutrients from the soil / medium.
- It guides in taking up immediate corrective measures to address the deficiency status.

What is the recommended procedure to take petiole sample in Pomegranate crop after pruning?

The recommendation for time of sampling and the petiole to be sampled in Pomegranate crop is 8th leaf from apex of the growing shoot/branch at 50% flowering after pruning.

Does petiole testing help in fertilizer recommendations?

Petiole analysis generally provides more current plant-based information and is therefore more suited for correcting nutrient deficiencies in standing Pomegranate crop for better nutrient recommendations for,

a) Better fruit setting & fruit development

b) More fruit weight & fruit lustre

What are the parameters recommended for analysis?

The samples should be analysed for total contents of N, P, K, Ca, Mg, S, Zn, Mn, Fe, Cu, B and Mo. In addition, if any other parameters are recommended by the advisor/s, they will have to be analysed.

How petioles should be packed and sent to laboratory for analysis?

- The sample must be packed in clean unused paper bags to avoid contamination, appropriately labelled, and accompanied by the contract agreement form duly filled.
- Samples should be sent to the lab such that they reach the laboratory at the earliest, preferably within 3 days of sampling.