

Instructions

Plant sap analysis

Knowing what arrives



These instructions are intended to ensure smooth processing from sampling to shipping and receipt of the analysis results.

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The plant sap analysis

The analysis package contains two samples. As a rule, one sample per plant crop is sufficient. Thus, two different plant species can be analysed for nutrient content. Under certain circumstances, a differentiated analysis of young and old leaves of the same plant culture is useful - in this case, two samples of one plant are necessary (one sample with young leaves and one sample with old leaves).

Measurement parameters

The analysis determines the following measurement parameters:

Measurements carried out per plant sap analysis

Sugars – pH – EC

Potassium - Calcium - Magnesium - Sodium

Ammonium - Nitrate - N-total

Chloride - Sulphur - Phosphate

Silicon - Iron - Manganese - Zinc - Boron

Copper - Molybdenum - Aluminium

Advantages of plant sap analysis

Leaf sap analysis enables proactive nutrient management - fertilisation can be adjusted quickly and individually to the crop. Using the novel method, nutrient mobility can also be tracked over time - valuable information that enables fast and data-driven management decisions.

- Quick results on nutrient supply
- Reveals nutrient deficiencies even before deficiency symptoms are recognisable
- Enables targeted and rapid adjustment of fertilisation for optimum nutrient supply
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- Saving fertilisers by increasing nutrient efficiency
- Shows differences in nutrient uptake between varieties

Sampling

Sampling location

The following must be observed when taking samples:

- Representative location: avoid sampling at corners of plots in the field or in the greenhouse.
- Ensure that the quality of the leaves sampled is representative of the plot. Sample plants with deficiency symptoms individually. If deficiency symptoms are observed in general, sample leaves with average deficiency symptoms.
- Consider sunny and shady sides of the plant - make sure the same side is always sampled.

Sampling time

It is strongly recommended to take the sample before 9:00 am to ensure sufficient leaf tension. The leaves must contain enough sap to be able to take measurements.

Excess moisture

Wenn die Aussenseite der Blätter nass ist (z.B. aufgrund von Tau oder Regen), muss es trocken getupft werden, bevor das Blatt in den Probenbeutel gegeben wird. Überschüssige Feuchtigkeit hat einen verdünnenden Effekt auf die Analyse.

Plant part

Take the **youngest, fully developed leaf** for sampling. If the old leaves show signs of deficiency and at the same time the young leaves do not, also take the oldest vital leaf. In this case, two separate samples must be taken

- When taking the leaf sample, make sure that the petiole has been completely removed so as not to falsify the analysis. The values in the petiole can differ greatly from the values in the leaf.
- Avoid sampling leaves that have infections of bacteria, fungi or viruses. In addition, the leaves must be free of insects.

Sample quantity

As a rule, 20 leaves per sample are sufficient to obtain the minimum quantity of 150 grams. However, this depends on the type, size and shape of the leaf. If you are not sure about the amount of leaves to be taken, please contact us.

Packing of leaf samples

To ensure smooth processing, we recommend that you stack the sheets during sampling and fold them as needed so that they fit into the sample bag. Carefully slide the folded sheets into the bag.

Squeeze the air out of the bag - this ensures that there is no air left in the bag and leaf evaporation is excluded (see pictures of a tomato leaf below as an example).



Apply barcode

Fill in the labels and stick them on the bags (see pictures below). Indicate the sample date, the culture name and type of leaf.



Packing the samples

Make sure that the leaf samples are placed as flat as possible in the envelope (see pictures below). The envelope must fit through a letter slot.



Shipping

The analysis is carried out in the Netherlands. The customs declaration has already been completed and the postage paid. For smooth shipping and prompt receipt of the analyses, the following points must be observed:

- Always weigh the envelope before sending it in - the envelope must not weigh more than 500 grams.
- Make sure that the envelope is properly sealed. If several samples are sent at the same time, a package can be sent with a package stamp.

Please also **fill in the sticker provided** so that the samples are not opened at customs (see picture on the right). The following information must also be provided:

- 3 List of sampled plant species
- 8 Deklaration über die Richtigkeit aller Angaben. Bitte Name mit Datum angeben und unterschreiben.
- To ensure that the samples do not take too long to arrive, it is best to hand in the envelope to the post office on Monday.
- The pre-paid envelope can be dropped into a post box or handed in directly at the counter.

