



Plant sap sampling guide

Tomato



PLANTPRODUCTS

A member of Biobest Group

Please contact your Plant Products Technical Representative with any questions.



Collecting and submitting samples

Location

Take the following steps into consideration when collecting leaf samples:

- Avoid the outer rows of the field and the first and last 10 yards of a row.
- Sample leaves of average leaf quality.
- Sample abnormal plants (with deficiency symptoms) separately. If a deficiency might be present in the young or old leaves of the total crop, sample these leaves separately as a young or old leaf sample.
- Keep in mind the sunny and shady side of the plant. Always consistently sample the same side.

Time of sampling

It is strongly recommended to take the samples before 9:00 AM. The plant will then have enough leaf-tension with proper moisture conditions.

Begin with sampling the leaves 4-5 week after planting, from then on every week. The same applies to water samples, irrigation, slab and drain water.

Plant parts

For a young leaf sample, pick the **youngest, fully developed leaves**. Most of time this will be the 6th leaf from the top of the plant. Also pick (separately) the **oldest, but still vital leaves**. This is the first or second vital leaf from the lowest part of the plant (see pictures 1,2, 3 and 4). Stack the leaves for each sample and remove the petioles, as they will not give a good indication and influence the analyses.

It is not allowed to send in samples that have a fungal, bacterial or virus infection. The leaves must also be free from insects.





Youngest fully developed leaf

Oldest, but vital leaf

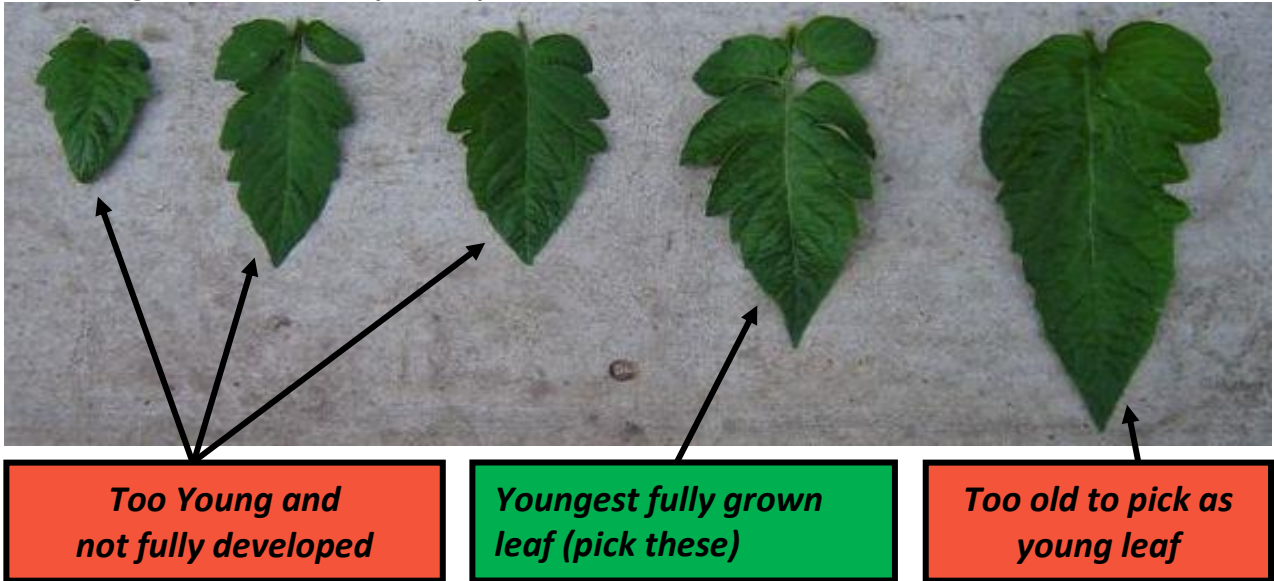


Pic. 1

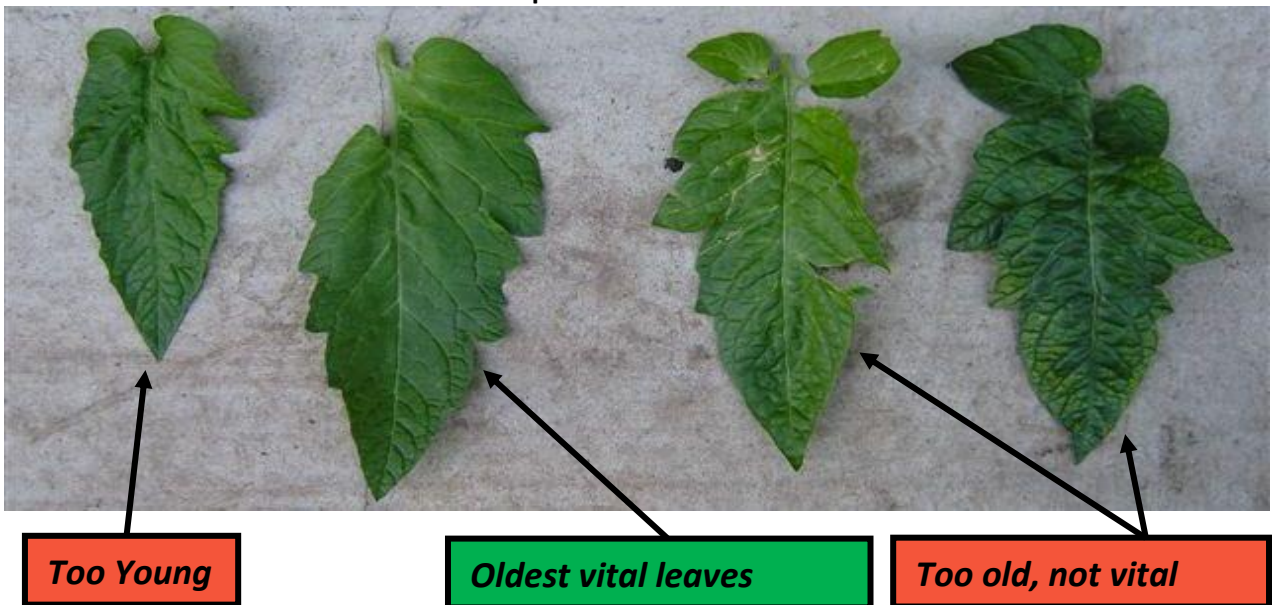


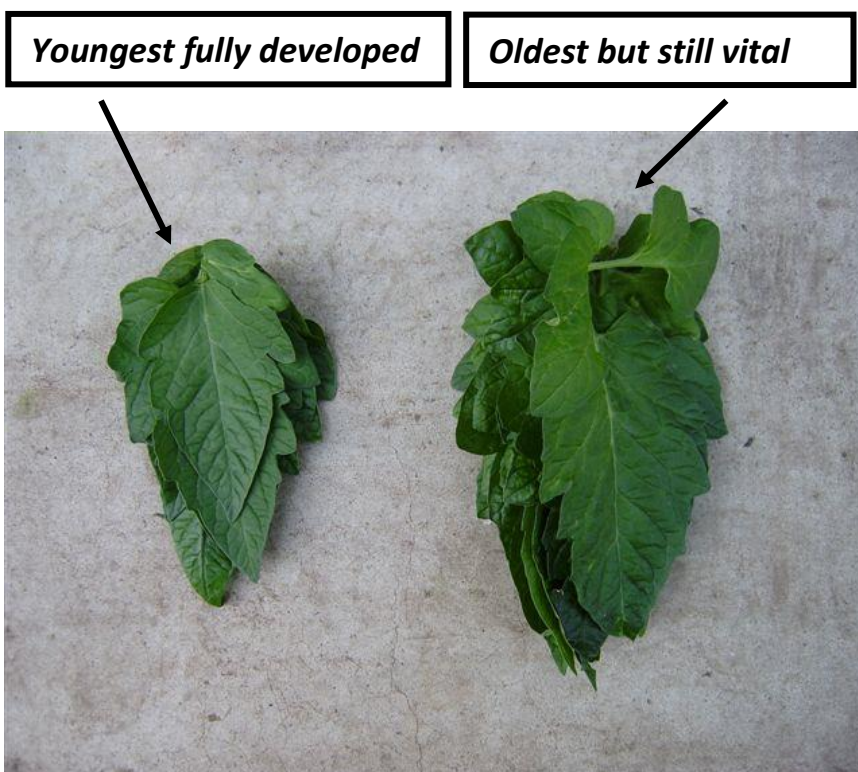


Pic. 2 Young leaves from the top of the plant



Pic. 3 Oldest leaves from the bottom of the plant





pic. 4

Sample size

For an average, representative sample about 20-30 leaves are needed. Of course sample size can vary, depending on leaf type (size and thickness). If you are unsure about the sample size, please feel free to contact us.





Packing the leaf samples

When leaves are wet on the outside due to dew or rain, they can be dried with a tissue. Leaves must be dry from the outside to be analyzed because water will have an influence on the results. Moreover, the leaves will spoil faster if there is water in the sample bag.

Please pack the young and old leaf samples separately, these will be two different samples. To assure fluent processing please stack the leaves, fold the leaves if needed, and put them in a plastic zip-lock bag carefully. Make sure all air is out, so any leaf evaporation is excluded. See pictures.



Fill in the labels correctly and place them on the bags (see pictures below). We prefer pre-printed labels because it saves us a lot of administration time. It also has advantages for you:

- When using Bemesting-Online program you need the same location names and crop names to make comparisons (graphs), pre-printed labels make this a lot easier.
- If our employees must read what is on the label, the chance of reading errors is very high, this is not the case with preprinted labels.
- You no longer must write the location and crop name on the label on the spot.

Let us know if you need help with this.





Sampling water

Make sure that the bottle is completely full. The analysis may be wrong if there are air bubbles in the bottle.



Take a drip water sample at the dripper like in the picture below. A slap water sample can be taken by a syringe out of the substrate bag. Make sure you take the samples from several substrate bags, see the picture below. A drain water sample can be taken from the water return system.



The labels for a water sample need to be placed in such a way that the barcode is still readable. Tighten the cap enough so that it does not leak. Do not overtighten as this may break the cap.

