

Plant-available elements

Plant-available elements are those elements in the soil which are available for plants during the vegetation period in an accessible form.

These include:

- Water-soluble elements
- Exchangeable elements

Ecological importance:

The information about plant-available elements is important for optimizing the fertilization strategy. If the requirement of a specific crop (with an expected yield level) exceeds the existing amount of plant-available nutrients in the soil, an input is necessary (e.g. by means of fertilization).

It is essential that the nutrients are present in favorable proportions to each other!

The quantity of plant-available elements is affected by:

Input of mineral and organic fertilizers, tillage, crop rotation, biological activity, ion antagonism, ion synergism.

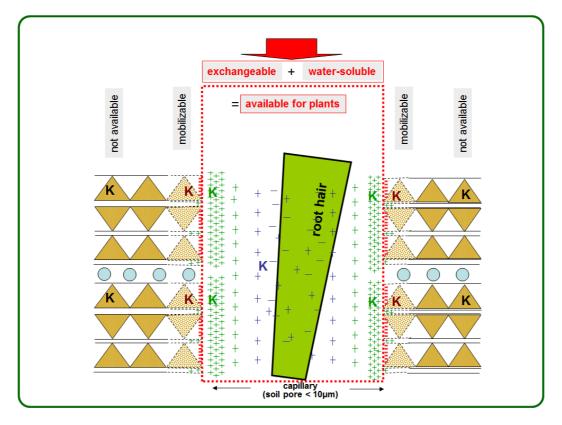


Figure: Soil pore, elements (e.g. K) in different solubilities, highlighted: plant-available elements.