Initial Sampling / Basic Characterization (Validity: 5 to 10 years)

Describes the **status quo**, the current state of the soil and is therefore the basis for the derivation of **measures** to **optimize soil fertility and plant nutrition**. With the Initial Sampling, all parameters of the Fractionated Analysis and the dynamic processes in the soil are recorded and evaluated. In a comprehensive report, the analysis results are presented using tables and graphs. Amelioration measures and recommendations are also derived in order to optimize soil fertility and preserve it in a sustainable manner.

If you have any questions regarding the results, you can always contact us! This is a self-evident service for us and of course free of charge!

Among others, you will receive the following information:

- What is the current nutrient supply? Are the nutrients in balance? Can nutrients (e.g. phosphorus) be mobilized or is there a need for fertilization?
- In which acid buffer system is the soil currently located? Is there a need for liming?
- What is the humus content and its quality? What are the environmental conditions for soil organisms?
- Is the soil fit for climate change and soil fertility preserved in a sustainable manner? Is the potential of the site being exploited?
- Are the soil functions (e.g., ground protection, flood protection) fulfilled? Does the soil bear a hazardous potential (e.g., potentially toxic substances)?

Range of parameters:

Basic Parameters / Sorption Complex:
Soil texture (KH), coloration, turbidity, pHKCl, pHWater, lime content, electrical conductivity (eC), Corg (=soil organic matter content), C/N, C/P, C/S (soil organic matter quality), cation exchange capacity (CECactual, CECpotential), base saturation, substance ratios on the sorption complex (Ca, Mg, K, Na, Al, NH4, Fe, Mn, H, pot. acid).

Elements in the Water Extract:
Ca, Mg, K, Na, NH4-N, NO3-N, Al, Ba, P, Si, SO4, Cl, Fe, Mn, Cu, Zn, Co, Mo, B, As, Ni, Cr, Pb, Cd, Tl, V.

Elements in the Exchanger Extract:
Ca, Mg, K, Na, NH4-N, Al, Ba, P, Si, Fe, Mn, Cu, Zn, Co, Mo, B, As, Ni, Cr, Pb, Cd, Tl, V.

Elements in the Reserve Fraction:
Ca, Mg, K, Na, Al, Ba, P, Si, Fe, Mn, Cu, Zn, Co, Mo, B, As, Ni, Cr, Pb, Cd, Ti, V.

5 Phosphorus Pools:
Water-soluble, exchangeable, acid-soluble and organic phosphorus as well as total contents.

Presentation of Results

The results of the analyses are presented in two comprehensive summary sheets (see figures below). Furthermore, a detailed and informative report explains and describes the result.