

Analytical Conception for Phytoextraction in the Future

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In general the analytical process will be separated in three steps: investigations before and during extraction as on the finished extract. Contaminants like for example heavy metals, herbicides and pesticides, pyrrolizidine or tropane alkaloids, microbes, yeasts, aflatoxines will become more and more important. It should be ensured that only plant material without such contaminants are used for extraction. Therefore measures of quality assurance are established already during the cultivation over the total process. Of course the relevant constituents and also the limitation of critical components have to be considered and checked by analytical investigations. It is crucial to use the best suitable varieties of the plant species. During extraction the content of the relevant constituents are monitored also to detect unknown deviations. The final investigations have to be more a character of a confirmation for the extract quality than a typical quality control. For that the results of this process step are used for creating the certificate and not for corrective actions at the extract.