

IFAS Analytical Services Laboratories

Analytical Research Laboratory

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WEB: <https://soilslab.ifas.ufl.edu/analytical-research-testing/>

Email: arl@ifas.ufl.edu

ARL GOAL: Our primary goal at the ARL is to provide IFAS researchers with high quality analyses. Additionally, strive to provide these services in a friendly and timely manner at a modest fee. However, quality, timeliness, and cost of analyses are all adversely affected when samples are submitted improperly to the ARL.

SAMPLE PREPARATION: You can help by ensuring that all samples are correctly prepared and labeled prior to their arrival at the ARL.

SOLUTION CHECKLIST – Read carefully before submitting samples to the ARL

1. Samples can be scheduled with the ARL prior to delivery. An email will be sent to you with your set number and assigned appointment date listed. Bring a copy of this email with your samples. Unscheduled samples will be assigned set numbers after arrival. You will be notified of the set number within one business day after sample submission.
2. Please provide the ARL with your best estimate of the number of samples you would like to submit. It is best to over-estimate rather than under-estimate on this number. If you have more samples than are indicated on your Sample Analysis Request Form, a new set will have to be generated for the extra samples.
3. The same parameters must be requested for all samples within a set.
4. The ARL is using direct invoicing of UF/IFAS research account numbers for payment of services. Please expect to budget \$2.00 per requested analyte/element and \$2.00/digestion/sample. Samples with unusual matrices or other problems may be subject to additional charges. Be sure to provide your sample matrix on this form. Please contact the ARL with any questions concerning unusual matrices or special analyses.
5. Currently the ARL prefers samples to be provided in 20-mL scintillation vials (Fisher 0333723C) with the sample identification printed clearly on the SIDE of each vial. Labeling the vial caps only is unacceptable. Samples must be numbered sequentially (no letters or symbols).
6. Sample debris: Materials such as ash, suspended solids, mold, algae, etc. will clog aspirators and pump tubes resulting in considerable instrument down-time as well as the need to re-run samples. The ARL reserves the right to refuse to analyze samples containing debris. If ARL personnel are available to filter your samples, an additional \$1.00 per sample will be charged to your account.
7. Sample concentration and method selection: The ARL recommends that whenever possible, sample concentrations be controlled so they fall within the linear working range of the ARL's instrumentation through dilutions, and/or sample weight to volume ratios prior to the arrival of the samples at the lab. While the ARL can and does perform dilutions at the bench, we cannot guarantee to match the exact matrix in which you prepared your samples, which may introduce error. In addition, there will be a fee of \$1.00 per dilution per sample charged to your account. A list of current PQLs, linear working ranges, and method references can be found on our website. Please check these ranges and methods to ensure that the analysis you have selected is applicable to the sample matrix you are submitting and will provide you with the information you want. The ARL is not responsible for incorrect method selection on the part of the researcher, and you will be charged for all analyses you have selected that the ARL has performed.
8. Sample matrix: Solvents or solutions with elevated salt concentrations, excessive acid/base concentrations, or highly organic matrices can cause instrumentation damage and/or destroy delicate instrument parts. If you have samples with an unusual matrix, please contact the ARL prior to submitting your samples. This includes samples with salt or acid concentrations exceeding 1.0 molar, samples extracted using organic chelating agents, samples of a basic nature, and samples processed using hydrofluoric acid. This information should

also be included in writing on your sample analysis request form. If you do not contact the ARL and instrumentation is damaged during the analysis of your samples, and it is determined that the damage was due to the sample matrix, your account will be charged for the parts necessary to repair the instrument.

9. Please critically evaluate your report as soon as possible after receipt. The ARL holds analyzed samples for at least 4 weeks after the final report is mailed to the researcher. Samples will be discarded after that date unless otherwise instructed. The completed hard-copy data package will be maintained on file for three 3 years.

Please note: Many IFAS researchers have already incorporated the above requests with little or no disruption to their sample preparation/submission program. Unfortunately, additional charges, lost productivity and the return of unanalyzed samples are all potential consequences of improperly prepared samples. Please do not hesitate to contact the ARL if you are unclear about any of the above instructions, or if you have any other questions or comments.