

DATA COLLECTING, RECORDING AND COMPUTING

Up-dated October 2011

In order to have some degree of continuity among students and staff in our data collection procedures, we want to set some guidelines to be followed when conducting experiments. Every animal experiment must have a written protocol with the appropriate IACUC number on it. Secondly, set up a notebook (not a manila folder because sheets of paper can and will fall out) with all data contained in that notebook.

Include:

1. Diet composition (on a dry matter basis);
2. Did you recalculate your diet if actual dry matters were different than estimated?
3. Dry matter of each diet or supplement ingredient;
4. Supplement composition (if one was used);
5. How the diets were fed (complete mixed; supplement top dressed, etc.);
6. Describe how the samples were ground;
7. Lab analyses (all lab analyses should be on a 100% DM basis) of the diet ingredients and other samples taken;
8. A listing of treatments (names instead of numbers) and animals in each treatment, report if animals were re-randomized between periods;
9. A daily log of food offered and orts, samples of each should be saved during digestion trials;
10. A daily log of fecal output (wet weight), fecal dry matters (freeze dried?, forced air?, temperature?) % feces sub-sampled, urine output (if sampled) and % sampled;
11. All lab analyses of feces, feeds and orts should be in this notebook.

As you are collecting these data, begin putting it on a disk, as you will probably be using Excel for your preliminary calculations. Include all this material on the disk. Organize the material on the disk. Do not make one huge spreadsheet unless there is a table of contents listed in A1 (home) of the spreadsheet. We prefer that there be another file with a description of the trial (protocol is a good place to start but it may not be detailed enough) and a listing of all the files on the disk. Please use one disk per experiment. It is difficult to remember all the details of each experiment months after it was conducted and we may want to use the data for different reasons than originally intended. The experimental protocol on the disk should include the step-up diets, step-up periods and report any problems with the trial (sickness, treatment, death, etc.). Put the number of the experiment at the top of the spreadsheet, label the disk and do not forget to back it up. Thanks for your help. If we will adhere to this type of regimen, it will make us better record keepers which is an important part of research.

Common lab analyses (such as proteins and DM on feedstuffs) will be recorded on a laboratory computer file by a lab technician. Otherwise, each individual student is responsible for keeping accurate records for each experiment he/she conducts. Laboratory analyses should be kept in the same notebook as the animal data. Again Excel files of laboratory data should be organized and self-explanatory. The raw data should be in these files. Occasionally mistakes are made and the raw data is needed to check for mistakes. The experimental notebooks should be surrendered to your major professor before you leave the university.