Manure Sampling Instructions

Soil Science Department, UW-Madison

Solid manure - Dairy, Beef, Swine, Poultry

Sampling while loading - *Recommended method for sampling from a stack or bedded pack.* Take at least five samples while loading several spreader loads and combine to form one composite sample. Thoroughly mix the composite sample and take an approximately one pound sub-sample using a one-gallon plastic bag. *Sampling directly from a stack or bedded pack is not recommended.*

During spreading - Spread tarp in field and catch the manure from one pass. Sample from several locations and create a composite sample. Thoroughly mix composite sample together and take a one pound sub-sample using a one-gallon plastic bag.

Dairy haul - Place a five-gallon pail under the barn cleaner 4-5 times while loading a spreader. Thoroughly mix the composite sample together and take a one pound sub-sample using a one-gallon plastic bag. Repeat sampling 2-3 times over a period of time and test separately to determine variability.

Poultry In-house - Collect ten samples from throughout the house to the depth the litter will be removed. Samples near feeders and waterers may not be indicative of the entire house and sub-samples taken near here should be proportionate to their space occupied in the whole house. Mix the samples well in a five-gallon pail and take one pound sub-sample, place it in a gallon zip-lock bag.

Stockpiled litter - Take ten sub-samples from different locations around the pile at least 18 inches below the surface. Mix in a five-gallon pail and place a one pound composite sample in a gallon zip-lock bag.

Liquid Manure - Dairy, Beef, Swine

From storage - Agitate storage facility thoroughly before sampling. Collect at least five samples from storage facility or during loading using a five-gallon pail. Place sub-sample of the composite sample in a one-quart plastic container. *Sampling a liquid manure storage facility without proper agitation (2-4 hrs. minimum) is not recommended.*

During application - Place buckets around field to catch manure from spreader or irrigation equipment. Combine and mix samples into one composite sub-sample in a one-quart plastic container.

Sample handling and storage

Solid/Semi-solid samples - Thoroughly mix composite sample and fill one-gallon plastic heavy-duty ziplock bag approximately one-half full. One method of mixing a composite sample is to pile the manure and then shovel from the outside to the inside of the pile until well mixed. Squeeze out excess air, close and seal. Store sample in freezer if not delivered to the lab immediately.

Liquid samples - Thoroughly mix composite sample and fill a one-quart plastic bottle not more than three-quarters full. Using a plunger and an up-and-down action works well for mixing liquid manure in a five-gallon pail. Store sample in freezer if not delivered to the lab immediately.

Sample Identification and Delivery

Identify the sample container with information regarding the farm, animal species and date. This information should also be included on the sample information sheet along with application method, which is important in determining first year availability of nitrogen. To obtain an information sheet please see the submission form page at http://uwlab.soils.wisc.edu/forms.htm.

Keep all manure samples frozen until shipped or delivered to a laboratory. Ship early in the week (Mon.-Wed.) and avoid holidays and weekends.