

# TOOLS of the trade

*Photo essay by Mae Smith*

Many tools are available that can help you be a better land manager. Sampling or measuring different aspects of your acreage may aid in management decisions. Here are some tools that can help with these tasks. Some may be more familiar to you than others.



**Soil corer:** You'll want a soil corer to collect soil samples that can be sent to a lab for analysis. A shovel can be used, but debris is more likely to enter the sample. To use the soil corer, clear debris from the soil surface, then push the corer to the appropriate depth and remove the sample. A general guideline is 4 inches for lawns or pasture and deeper for gardens or farms. Place in a bucket with other samples for a good representation of the area. Grab a handful from the bucket, place in the sampling bag and send to a lab for analysis. The lab report will provide information to aid planting, fertilization, and irrigation decisions.



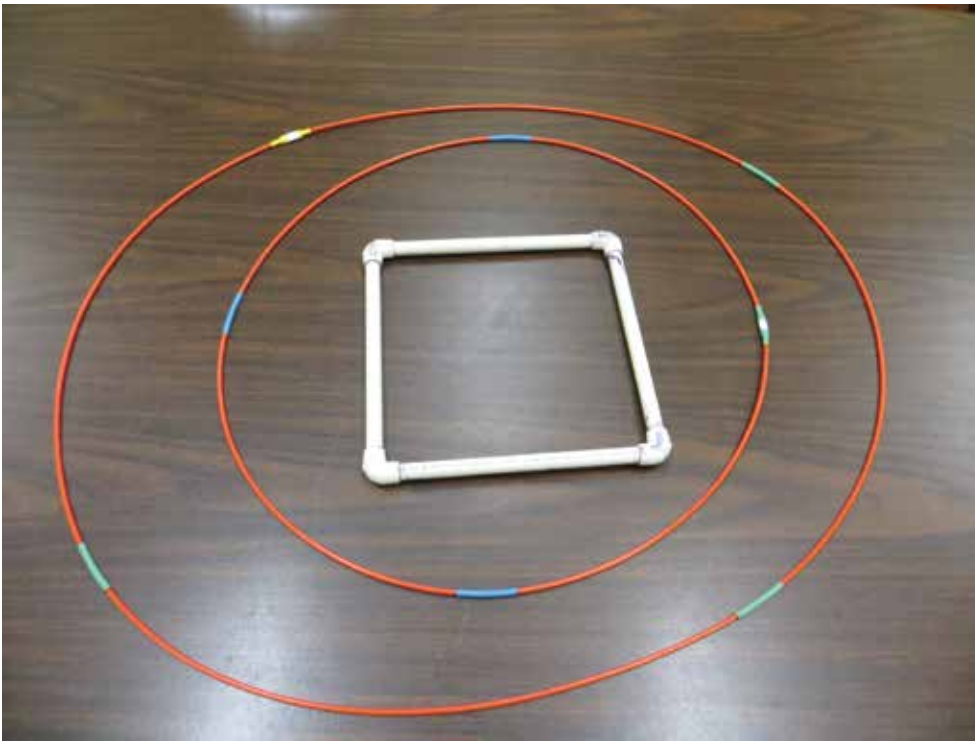
**Hay probe:** The hay probe collects forage samples for analysis. To use, stab into the side of a hay bale and twist the handle to core into the bale. Some can be connected to cordless drills. Remove the probe and deposit the sample into a bucket. Repeat for several other hay bales you want included into the sample and mix. Send a handful to a lab for analysis. This information is used to make decisions about amount of hay to feed, additional supplements needed, and possible toxicity.



**Measuring tape:** A 100-foot measuring tape can be used for range monitoring or planning. Many range management techniques require stretching a long measuring tape and collecting data at increments along the tape. A tape can also be used for planning landscaping and construction projects, such as a high tunnel.



**Water sampling bottle:** Often, these bottles are provided free of charge (the pictured bottle was sent from a lab to be used for water testing). There is a similar bottle used for bacterial samples. If a bottle is not provided, use a clean plastic container that holds at least one-half pint and has been rinsed several times. Water analysis can be time-sensitive, so verify the procedure before sampling so samples arrive at the lab in a timely manner.



**Quadrats:** Quadrats help a land manager approximate forage production. The grass and edible forbs within a known area are clipped with scissors, collected in a paper bag, dried, and weighed. Multiple samples from across the field that are averaged help account for variability. The weight of the forage is then extrapolated to pounds per acre. Several different shapes and sizes of quadrats are pictured. Circular is usually better, and larger quadrats are used for low production areas. Knowing the productivity helps with decisions about how many animals can be supported on a piece of land for a certain time.



**Plant press:** A press helps preserve plant specimens for identification by a professional and, when properly labeled, the plant's location can be documented. Also, a nicely pressed plant may be used for crafts or decoration. The press can be purchased or made at home with newspaper, cardboard, plywood, and straps. The key is wicking water away from the plant and allowing airflow so the plant doesn't mold.

### Final Thought

You don't have to purchase these items unless you think you will use them enough to justify their expense. Your local extension office or conservation district probably has them on hand and would love to loan them. Now that you know some of the tools of the trade for sampling, you can be better equipped and in the know when making management decision.