

SAMPLING TALL FESCUE AND PERENNIAL RYEGRASS FOR ENDOPHYTE TOXIN ANALYSIS

Recent concern about endophyte-infected tall fescue and perennial ryegrass seed straw has generated repeated questions about submitting samples of straw for "endophyte testing." Straw samples are analyzed for toxin content, not for endophyte presence. These chemical analyses are only as good as the straw sample provided. In other words, a toxin test will accurately represent a lot of straw only if the sample is truly representative. The following guidelines will ensure that the samples are as representative as possible.

Use a core sampler. Commercial forage samplers are available through farm supply sources. You can attach a core sampler to a brace or ½-inch drill for easy sampling. Your county Extension agent can help you locate a supplier. Ideally, the sampler should have an exterior diameter of ½ inch and a sample length of at least 12 inches. Minor deviations from these measurements are acceptable.

Sample a bale by centering the core sampler in the end of the bale and drilling horizontally. Take at least 20 cores (1 per bale) for each lot of hay.

A lot of straw should represent straw from one variety, harvested from the same field. If two lots of straw are in a stack, sample them separately. A truck load of straw may be considered a lot if there is no information to the contrary.

Bales within a lot of straw should be sampled at random. *Random* means that you have no precise reason for selecting or rejecting a specific bale to sample.

Here are two ways to guard against biasing: 1) sample every fourth or fifth bale going around the stack (or truck) or driving down the row in the field, or 2) take at least 5 random samples from each of the four sides of the stack.

Place the entire sample in a polyethylene freezer bag and seal it tightly. Be sure to **label** the sample **with your name, phone number, sample identification, and assay** you want performed either on the bag with a permanent marker or on a piece of paper (a business card is ideal) enclosed with the sample. **In addition, as of July 1, 2000 accounting has requested that new clients provide either a Federal Identification Number or Social Security Number for billing purposes.**

To take a **pasture sample**, randomly select 20 separate sites within the pasture. At each site clip a handful of grass just above the ground. If your animal typically pulls the plant up by the roots and eats the entire plant, you may wish to pull up a handful of plants at each site. Other wise, clipping plants at ground level will be sufficient. It is best to **air dry** your sample out of direct sun light before shipping. **If your sample is not dry, it is not acceptable for testing and should not be submitted.**

Proper samples should be submitted to the following address:

**139 Oak Creek Building
Endophyte Service Laboratory
College of Agricultural Sciences
Oregon State University
Corvallis, OR 97331**

The laboratory phone number is (541)737-2872 if you have any questions.

The cost is \$40 US Funds/sample/assay.

Checks should be made payable to: Oregon State University

Clients may choose to be billed rather than to send payment with sample.