

Maryland Forages Program Drought Information

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Maryland Forages Program Publications

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Maryland Department of Agriculture State Chemist Section Forage and Stored Grain Testing Program

The Maryland Department of Agriculture (MDA) is offering a free testing program to drought impacted Maryland farmers for nitrate and prussic acid in forage and for aflatoxin in corn grain. Prussic acid poisoning is mostly associated with sorghum and related species. The program is a cooperative effort between MDA and the Maryland Cooperative Extension (MCE). Testing is done by the MDA State Chemist's Section. The contacts in the State Chemist Section are Donald Lewis (LewisDV@mda.state.md.us) or Ken McManus (McManuK@mda.state.md.us) who can be reached at 800-494-5590 x 2721 or 410-841-2721.

Farmers can bring their samples to their nearest MCE office so that MCE can assist them with paperwork and make sure the samples and paperwork are properly prepared. MDA will pick up the samples daily (Monday through Thursday) and fax results to farmers usually within 24 hours.

Instructions for preparing and packing samples for testing are below. Use one Sample Identification and Information Sheet (see below) for each sample submitted. Place samples in a plastic bag and refrigerate or freeze as soon as possible, especially if held overnight, and keep on ice during transport. Each separate field should have its own paperwork and sample.

Taking corn samples for aflatoxin analysis:

- Collect 12 ears of corn from different areas of the field to get a representative sample.
- Keep cold as described above.

Taking silage samples for nitrate and prussic acid analysis:

- Collect at least 10 stalks from different areas of the field to get a representative sample.
- Chop silage up into 6" pieces and thoroughly mix samples together.
- Prussic acid samples must be kept frozen at all times to prevent volatilization of prussic acid (hydrocyanic acid).



Maryland Department of Agriculture

Agriculture | Maryland's Leading Industry

Office of Plant Industries and Pest Management

Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor
Roger L. Richardson, Secretary
Earl F. Hance, Deputy Secretary

The Wayne A. Cawley, Jr. Building
50 Harry S. Truman Parkway
Annapolis, Maryland 21401
TTY Users: Call via Maryland Relay
Internet: www.mda.state.md.us

410.841.5700 Baltimore/Washington
301.261.8106 Washington, D.C.
410.841.5914 Fax
800.492.5590 Toll Free

2007 Forage and Stored Grain Test SAMPLE IDENTIFICATION AND INFORMATION SHEET STATE CHEMIST SECTION

PLEASE PRINT

Sample name or no. _____

Date: _____

Sampling Date: _____

Name: _____
Address: _____
City: _____
State: MD Zip Code: _____ - _____

County: _____
Phone: _____
Fax: _____

Extension Agent _____

Phone: _____ Fax _____

SAMPLE DESCRIPTION

Type of Sample: Fresh Material _____ Fermented Silage _____ Shelled Grain _____

Type of Crop

_____ Field Corn _____ Sweet Corn _____ Sorghum
_____ Corn Planted for Silage _____ Cannery Waste _____ Sorghum-Sudan Grass Hybrid
_____ Planted for Grain _____ Stalk Residue _____ Sudan Grass
_____ Unharvested _____ Other (please use space below to identify)

Variety _____ Average Height of Crop: _____

FERTILIZER AND RAINFALL INFORMATION

Total Amount of N Fertilizer Applied at Planting and/or Top dressed: _____ Lbs/acre
OR _____ lbs and Analysis of Fertilizer

Other: _____

Amount of Manure Applied Within Last Year: _____

If the sample is fresh, record the amount of rainfall within the last 7 days: _____

ANALYSIS

Type of Test Desired (Circle Choices): **NITRATE** **PRUSSIC ACID** **AFLATOXIN**

NOTE: SAMPLES SHOULD BE FROZEN AS SOON AS POSSIBLE, KEPT IN THE FREEZER UNTIL TRANSPORT, AND SHIPPED WITH FREEZER PAKS DURING TRANSPORT.

IF YOU HAVE ANY QUESTIONS, PLEASE CALL DONALD LEWIS OR KEN MCMANUS AT 1-(800)-492-5590, EXT 2721.

For State Chemist Use Only