

Directive

9180.40 3-30-09

PESTICIDE RESIDUE TESTING FOR GRAIN

1. PURPOSE

This directive specifies the procedures for obtaining pesticide residue testing services for grain under the U.S. Grain Standards Act (USGSA).

2. REPLACEMENT HIGHLIGHTS

This directive supersedes FGIS Program Directive 9180.40, Pesticide Residue Testing for Grain, dated 10-20-08. This directive is updated to reflect changes made to certification procedures.

3. BACKGROUND

Upon request, the Grain Inspection, Packers and Stockyards Administration (GIPSA) Federal Grain Inspection Service (FGIS) provides pesticide residue testing service for grains.

Testing is performed at the USDA, GIPSA, FGIS, Technical Services Division (TSD), Quality Systems and Services, Kansas City, Missouri. The service is provided using gas chromatography/mass spectrometry.

- a. Compounds Tested. FGIS tests for the following residue compounds:
 - (1) Routine Compounds. See attachment 1.
 - (2) Special Compounds. Special compounds include compounds not listed on the attachment as "routine." Contact TSD to determine the ability to test for special compounds.
- b. Types of Services. There are three types of pesticide residue testing services available:
 - (1) Official Sample-Lot Service. Analysis based on an official sample obtained and analyzed by official personnel.
 - (2) Submitted Sample Service. Analysis based on a sample submitted by the applicant for service.

- (3) Warehouseman's Sample-Lot Inspection Service. Analysis based on an official sample obtained by a licensed warehouseman sampler and analyzed by official personnel.
- c. Basis of Determination. All grains are tested on the basis of the sample as a whole. Shiplots and combined lots are tested on a composite sample. Upon request, testing can be performed on a subplot basis.

4. RESPONSIBILITIES

- a. Applicant for Service. The applicant may request the testing service through the official service provider (official sample lot inspection) or mail a sample (submitted sample analysis) directly to TSD. The request must include the applicant's name, address, and telephone number; the desired test(s); and whether qualitative or quantitative certification is desired with contract specification level, if applicable.
- b. TSD. For official sample lot service and warehouseman's samples sent to TSD by a FGIS Field Office or Official Service Provider (OSP), TSD is responsible for performing the requested test, maintaining a file sample, and reporting the results to the FGIS Field Office/OSP or applicant for service, as applicable, in a timely manner. For samples sent to TSD by an OSP, TSD will also be responsible for billing the OSP for the testing service. The OSP in turn will bill the applicant for service.

For submitted samples TSD is responsible for performing the requested test, maintaining a file sample, issuing the certificate, and billing the applicant for the services.

- c. Field Offices.
 - (1) For official sample lot service and warehouseman's samples, FGIS Field Offices will complete a Pesticide Residue Transmittal form (see attachment 2), forward the sample (and form) to TSD for testing, issue the certificate, and bill the applicant for the testing service.

TSD must provide the field office with the test results and complete information (e.g., management code, billing units, etc.) for certification and billing.

- (2) For submitted samples, field offices will direct applicants to forward samples directly to TSD for testing and certification.

d. Official Service Providers.

- (1) For official sample lot service and warehouseman's samples, OSP will complete a Pesticide Residue Transmittal form (see attachment 2), forward the sample (and form) to TSD for testing, issue the certificate, and bill the applicant for the testing service. TSD in turn will bill the OSP for the testing service.
- (2) For submitted samples, OSP will direct applicants to forward samples directly to TSD for testing and certification.

5. PREPARING AND FORWARDING SAMPLES

a. Sample Preparation. From a representative sample, use a Boerner divider to obtain a minimum 500-gram sample and place in an airtight container. Retain a second sample of at least 500-grams as a reserve in an airtight container (e.g., double-sealed plastic bag) in case the first test sample is lost and must be resubmitted. Work samples may be used once they have served their intended purpose.

b. Sample Forwarding. Place the container inside a canvas bag and include a copy of the certificate, a copy of the request for service and, if available; and the following information (see attachment 2):

- (1) Applicant's name, address and telephone number
- (2) Desired test and certification desired (qualitative/quantitative) and contract specification level
- (3) Type of pesticide testing requested (routine/special)
- (4) Date sampled
- (5) Official weight of sample
- (6) Sampling Method
- (7) Commodity Location
- (8) Date mailed

Providing all necessary information will ensure receiving timely results. Write "RES" on the shipping label in large, bold letters. If the applicant arranges for sample delivery, affix a blank tag to the sealed sample marked accordingly with desired test before surrendering it to the applicant.

Mail all samples to:

USDA, GIPSA, FGIS
Technical Services Division
10383 North Ambassador Drive
Kansas City, Missouri 64153-1394

6. REVIEW INSPECTIONS

- a. Sections 800.125 and 800.135 of the regulations permit a review inspection on either official grade/factors or official criteria. When requested, a review inspection for official grade/factors and official criteria may be handled separately even though both sets of results are reported on the same certificate.
- b. Applicants may request either qualitative or quantitative review analysis unless the original or a review analysis was quantitative. Then, only a quantitative analysis is available. All review inspection results replace previous results.

7. CERTIFICATION

- a. Residue results may be reported on a separate certificate or on the certificate for grade (applicant's option). When residues are certified for export certificates, date the certificate the date loading was completed. Date domestic certificates the date pesticide residue testing results are received. See the Grain Inspection Handbook, Book IV, Chapter 3, Certificates, for further certification instructions.
- b. Certify the test results in the "Results" section of the certificate:
 - (1) Qualitative Test Results. Show the results as meeting or exceeding a limit.

For example: Acetochlor < 3 ppb
Carboxin > 1 ppb
 - (2) Quantitative Test Results. Show results that meet or exceed the detection limit as reported by TSD.

For example: Fluridone 1.5 ppb
Oxadixyl 21 ppb
Malathion 610 ppb

For quantitative test results that are less than the detection limit, certify as less than the detection limit.

For example: Aldrin < 13 ppb, Malathion < 6 ppb

c. Optional Certification:

If requested by the applicant, use the following statement in the "Remarks" section of the certificate.

"(Name of pesticide) residue less than (record contract specification)."

8. FEES

Fees are shown in section 800.71(a) of the regulations under the USGSA, as amended.

Testing fees are applicable to any level of service (original inspection, review inspection, appeal inspection, or Board appeal inspection) and do not include a sampling service fee which, if applicable, will be assessed separately in accordance with the applicable fee schedules.

/s/ John Giler

John Giler, Director
Field Management Division

Attachments

PESTICIDE ANALYSIS SERVICE - Corn and Soybeans
 Routine Compounds

PESTICIDE	Detection Limits (PPB)	PESTICIDE	Detection Limits (PPB)
Acetochlor	3	Metolachlor	2
Alachlor	1	Metribuzin	7
Aldrin	13	Myclobutanil	2
Boscalid	2	Norflurazon	15
Carboxin	1	Norflurazon desmethyl	5
Chlorpyrifos	3	Omethoate	4
Clomazone	3	Oxadixyl	3
Cyfluthrin Total	10	Oxyfluorfen	2
Cyhalothrin Total	6	Parathion ethyl	4
Cypermethrin Total	25	Parathion methyl	6
DDD-p,p'	1	Parathion methyl O-analog	2
DDE-p,p'	2	Parathion O-analog	25
Deltamethrin	15	Pendamethalin	6
Dieldrin	2	Permethrin I & II	9
Dilsufoton sulfoxide	4	Phorate	4
Dimethenamid	1	Propetamphos	1
Dimethoate	8	Pyriproxyfen	32
Disulfoton	6	Quizalofop ethyl	2
Disulfoton sulfone	30	Resmethrin	2
Endrin	5	Tetrahydrophthalimide	15
Esfenvalerate	10	Trifluralin	2
Ethafluralin	1		
Fenoxaprop ethyl	1		
Fenpropathrin	4		
Fluazifop-p-butyl	3		
Fludioxonil	8		
Fluridone	1		
Hydroprene	21		
Indoxacarb	27		
Lactofen	9		
Malathion	6		
Malathion O-analog	3		
Metalaxyl	2		

PESTICIDE ANALYSIS SERVICE – Wheat and Barley
 Routine Compounds

PESTICIDE	Detection Limits (PPB)	PESTICIDE	Detection Limits (PPB)	PESTICIDE	Detection Limits (PPB)
3H-carbofuran	6	Dimethomorph	19	Methoxychlor	5
Acetochlor	3	Disulfoton	3	Metolachlor	3
Allethrin	3	Disulfoton sulfone	13	Metribuzin	6
Atrazine	3	Endosulfan I	6	Myclobutanil	13
Bromuconazole 46	6	Endosulfan II	6	Omethoate	3
Bromuconazole 47	4	Endosulfan sulfate	3	Parathion	5
Carbaryl	6	Epoxiconazole	4	Parathion-O	19
Carbofuran	34	Etridiazole	10	Phorate	8
Carboxin	3	Fenbuconazole	18	Phorate sulfone	5
Carfentrazone ethyl	3	Fenbuconazole 9129	5	Piperonyl butoxide	6
Chlorpyrifos	6	Fenbuconazole 9130	4	Pirimiphos Me	3
Chlorpyrifos Me	19	Fenitrothion	6	Propanil	5
Clodinafop propargyl	3	Fludioxonil	9	Propiconazole Total	11
Cyanazine	5	Flufenacet	6	TCMTB	25
Cyfluthrin Total	23	Fluridone	3	Tebuconazole	10
Cyhalothrin Total*	4	Heptachlor epoxide	3	Tetraconazole	4
Cyproconazole	11	Hexaconazole	4	Thiabendazole	13
DDE	3	Imazalil	28	Thiamethoxam	3
Diazinon	3	Lindane	6	Triadimefon	3
Diazinon-O	6	Linuron	25	Triadimenol	6
Diclofop me	3	Malathion	3	Triallate	6
Dieldrin	6	Malathion-O	5	Trifluralin	6
Difenoconazole Total	4	Metalaxyl	6	Triticonazole	4
Dimethoate	28	Methoprene	13		

Pesticide Residue Testing Transmittal Form

Applicant's Name	
Applicant's Address	
Applicant's Telephone Number	
Email Address to Receive Certificate(s)	
Desired Certification (Qualitative/Quantitative)	
Contract Specification(s)	
Type of Pesticide Testing (Routine/Special)	
Sampling Method	
Official Weight of Sample	
Sampling Location	
Date Sampled	
Date Sample Mailed to TSD	