



Residue Analysis Guide

SGS can help assist you in investigating your field for Herbicide Residues. Below is a summary of services we offer and how to initiate the analysis process. We can also provide a sampling guide for detailed instructions on sampling/shipping of different products.

Services We Offer:

Residue on Crop Tissue:

SGS can help you investigate if your crop has received unintentional application of herbicide through our residue testing services. After inspection of your field, if you suspect herbicide damage, SGS can analyse for most commonly applied commercial products, including Dicamba, 2,4-D, Glyphosate and many others. Sample the affected portion of your field as soon as possible and keep product cool until lab submission.

Residue on Soil:

If you are unsure of the status of soil prior to planting, SGS can help confirm presence of most commercially used herbicide products in soil. Sample suspected area in the top 4-6" range.

Formulation Identity and Concentration:

Concentrated liquid formulations, bulk tank, or mini-bulk tanks identity and concentration can be confirmed via HPLC laboratory analysis. Containers/tanks should be mixed as well as possible prior to sampling to ensure accurate measurement of concentration. One or two ounces is sufficient for testing.

Formulation/Bulk Tank Contamination:

Unintentional mixing or contamination of formulations or bulk tank mixes can be confirmed through a variety of strategies. If you are looking for suspected low level contamination in your concentrated formulation, please contact us to determine the best strategy for testing.

If you are interested in submitting samples contact us at:

Analytical.brookings@sgs.com or 605-692-7611

You can also visit us locally; we are located north of the Swiftel Center at
1405 32nd Ave
Brookings, SD 57006

This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Residue Results Interpretation Guide

The below definitions and explanations are to assist our clients in interpreting the results of their Residue results. If you have further questions interpreting your report please contact our team who can connect you to our technical staff.

Potential results and their interpretation:

- N.D.: The target residue cannot be detected above the LOQ
 - LOQ can range from 0.05-001PPM in most products. Formulated products may have higher LOQs.
 - N.D. results does not guarantee that the herbicide in question was never applied. We can only certify it cannot be found above our LOQ at the time of sample submission.
- Numerical Results: The target residue was found above the LOQ
 - The amount found will be indicative only of the amount at the time of sample submission. We cannot estimate original concentration directly from this value.
 - Toxicity of a residue will vary based on the specific crop and growing conditions at the time of spraying.

Definitions:

- Limit of Detection (LOD): Lowest amount of analyte that the protocol can detect.
- Limit of Quantification (LOQ): Lowest concentration of an analyte that can be measured with acceptable precision and accuracy under the stated conditions of the method.
- Not Detected (N.D.): Analyte is not detected above the listed LOD/LOQ
- PPM – Parts Per Million: Equivalent to mg of active ingredient/Kg of tested product
- PPB – Parts Per Billion: Equivalent to ug of active ingredient/Kg of tested product (PPM x 1000)

We recommend directing questions regarding physiological symptoms to an experienced Agronomist or Extension Weed Specialist and/or reaching out to your Chemical Rep. of the product in question.

This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.