



GMO ANALYSIS IN NORTH AMERICA TECHNOLOGY PROVIDES ACCURACY

SGS IS THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY

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The SGS Agricultural Services branch in North America is located in Brookings, South Dakota. The SGS Brookings laboratory provides a range of seed services including seed viability and vigor tests, purity testing, analytical services, ISTA certification, seed health testing, and genetic testing.

The Brookings DNA lab has been offering GMO (Genetically Modified Organism) testing for over 10 years. Our trained scientists have been involved in the development and validation of protocols used throughout the industry for GMO detection. Our testing laboratory operates under strict guidelines and is accredited to ISO 17025 and ISO 9001. Participation in proficiency testing for GMO events is completed annually.

- **Accreditations/Certifications:** ISO 9001:2008; ISO 17025:2005; Non-GMO Project; International Seed Testing Association (ISTA)
- **GMO Proficiency Participation:** USDA-GIPSA; ISTA; Canadian Grain Commission (CGC)
- **Approved Lab for:** Triffid (FP967) Flax testing for export shipments to EU; LL Rice detection by USDA-GIPSA verified 35S-BAR PCR method

ANALYSIS

We use quantitative PCR based DNA detection technology to determine the amount of GMO present in samples. We offer a range of GMO detection services that identify presence of GMOs to levels as low as 0.01%.

The usual flow of GMO tests is presented below.

Clients can select the level of GMO quantitation:

- Qualitative: yes/no detection
- Semi-quantitative: estimates % GMO based on statistics
- Real-time quantitative: % GMO based on known % GMO standards with LOD of 0.01% and LOQ of 0.1%.

COMMODITY	SCREEN	EVENT SPECIFIC ID	EVENT SPECIFIC ID (RESTRICTED)	ZYGOSITY (RESTRICTED)
ALFALFA	CP4 EPSPS	-	-	-
BENTGRASS	P35S, TNOS	-	-	-
CANOLA/MUSTARD	P35S, TNOS, CP4 EPSPS	RT73(GT73), T45, MS8, RF3, Oxy235, MS1, RF1, RF2, HCN92 (Topas 19/2)	RT200, MON88302	RT73(GT73), MON88302
CORN	P35S, TNOS	MON810, GA21, NK603, MON863, MON89034, MON88017, Bt-176, BT11, MIR604, T25, CBH-351, TC1507, DAS-59122-7, ES3272, MIR162	MON87460, MON87427	-
COTTON	P35S, PAT, TNOS	MON531, MON1445, LL25, MON15985, Widestrike, MON88913, GHB614	MON1698, MON757, BXN	MON88913
FLAX	-	FP967	-	-
RICE	35SBAR, TNOS	LL601, LL62, Bt63	-	-
SOYBEAN	P35S CP4 EPSPS, PAT	GTS 40-3-2, MON89788, A2704-12, A5547-127, DP305423	MON87701, MON87708, MON87705, MON87769	MON87701, GTS 40-3-2, MON89788, MON87708, MON87705, MON87769
SQUASH	P35S	-	-	-
SUGAR BEET	CP4 EPSPS	H7-1	-	-
WHEAT, BARLEY, TOMATO, POTATO	P35S, TNOS	-	-	-
FLOURS, MEALS, OILS, PROCESSED PRODUCTS/FOOD	Please inquire for additional information.			

ACCEPTABLE CONTAMINATION THRESHOLD AT 95% CONFIDENCE LEVEL	# OF SEEDS	WEIGHT
0 – 1.0	3,000 (cotton)	500g
0 - 0.03	10,000 (corn, soybean, canola) Recommended for export	3.5Kg (corn), 2.5Kg (soy), 100g (canola)
0 - 0.01	30,000 (Rice)	1.5Kg
0 - 0.01	40,000 (Flax)	2.5Kg
N/A	N/A	200 g (flours, meals, oils, processed products)

Our turn-around-time for GMO analysis is 4-5 working days (Monday to Friday). In case of urgency we offer a rush service. Online reporting is available.

All prices are available upon request.

SGS NON-GMO CERTIFICATION

The SGS Non-GMO Supply Chain Standard is designed to assist organizations, irrespective of their type or size, supplying non-genetically modified product. Applicable to both food and feed, the scope could include one part of the supply chain, a few pieces, or the entire supply chain of the production process. Critical points of the program include the control of parallel production, product traceability and an effective product recall system.

Certification against this standard gives companies the assurance of independent third-party verification by a globally recognized certification company.

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WHEN YOU NEED TO BE SURE

